



**TANGANYIKA**

---

**Annual Report**  
of the  
**Medical Department**  
**1958**

**Volume I**



**1959**

**PRINTED BY THE GOVERNMENT PRINTER**

**DAR ES SALAAM**

*Price Shs. 4/50*



# CONTENTS

## PART ONE

	PARAS.	PAGE
I.—GENERAL REVIEW ... ..	1— 22	1
II.—STAFF ... ..	23— 29	4

## PART TWO—PUBLIC HEALTH

III.—COMMUNICABLE DISEASES ... ..	30— 86	5
(A) Direct Infections ... ..	30— 64	5
Smallpox ... ..	30— 35	5
Poliomyelitis ... ..	36— 39	5
Leprosy ... ..	40— 45	6
Tuberculosis ... ..	46— 52	7
Enteric Fever ... ..	53— 56	8
Trepanematosiis ... ..	57— 58	9
Cerebro-spinal Meningitis ... ..	59	9
Anthrax ... ..	60— 61	9
Rabies ... ..	62	10
Influenza... ..	63	10
Infectious Hepatitis ... ..	64	10
(B) Vector Borne Infections ... ..	65— 86	10
Plague ... ..	65— 68	10
Relapsing Fever ... ..	69— 70	11
Sleeping Sickness ... ..	71— 80	11
Malaria ... ..	81— 86	13
(C) Helminthic Infestations ... ..	87— 89	14
Schistosomiasis ... ..	87— 88	14
Ankylostomiasis ... ..	89	14
IV.—MATERNITY AND CHILD WELFARE ... ..	90— 94	15
V.—SCHOOL HEALTH ... ..	95— 99	16
VI.—HEALTH EDUCATION ... ..	100—106	16
VII.—NUTRITION AND FOOD SUPPLIES ... ..	107—108	18
VIII.—ENVIRONMENTAL HYGIENE ... ..	109—120	19
(A) Urban Housing and Sanitation ... ..	109—115	19
(B) Rural Sanitation ... ..	116	19
(C) Food Hygiene ... ..	117—120	20
IX.—INDUSTRIAL HEALTH ... ..	121—126	20
(A) Health of Labour ... ..	121—123	20
(B) Industrial Diseases ... ..	124—126	20
X.—INTERNATIONAL AND PORT HEALTH ... ..	127—142	21
XI.—HEALTH OF PRISONERS AND DETAINEES ... ..	143—146	22

### PART THREE—CURATIVE SERVICES

	PARAS.	PAGE
XII.—HOSPITALS ... ..	147—246	23
(A) Dar es Salaam Hospitals ... ..	147—157	23
(B) District Hospitals ... ..	158—217	24
(C) Special Hospitals ... ..	218—246	32
XIII.—RURAL MEDICAL SERVICES ... ..	247—251	36
XIV.—SPECIALIST SERVICES ... ..	252—272	37
(A) Medical ... ..	252—257	37
(B) Surgical ... ..	258—260	38
(C) Ophthalmic ... ..	261	38
(D) Dental ... ..	262—266	39
(E) Mental ... ..	267—268	39
(F) Anaesthetics ... ..	269	39
(G) Tuberculosis ... ..	270	39
(H) Sleeping Sickness ... ..	271	39
(I) Child Health ... ..	272	39

### PART FOUR—ANCILLARY AND RELATED SERVICES

XV.—LABORATORY SERVICES ... ..	273—286	40
XVI.—TRAINING OF PERSONNEL ... ..	287—301	41
XVII.—MISSION MEDICAL SERVICES ... ..	302—305	44
XVIII.—RESEARCH ... ..	306—309	44
XIX.—CENTRAL MEDICAL STORES ... ..	310—313	45

# **TANGANYIKA**

---

## **Annual Report of the Medical Department for the year 1958**

---

### **PART ONE**

---

#### **I.—GENERAL REVIEW**

This report being written immediately after the close of the year with which it deals cannot contain detailed statistical information. This information is derived from the annual reports of districts and provinces and their collation and analysis is a considerable task. Final figures thus cannot be available for some months, but as in the past they will be published later in the year as Volume II of this Annual Report. Such figures as are quoted in the present report are as accurate as is possible in the circumstances but they are, of course, subject to confirmation or correction.

2. There was no change in the administrative organisation of the Department. The Director of Medical Services with his Headquarters in Dar es Salaam continued in administrative charge, assisted by a Deputy Director and two Assistant Directors. In each of the eight provinces of the territory medical charge was in the hands of a Provincial Medical Officer dealing directly with departmental Headquarters and having delegated to him very substantial powers and duties from the central directorate. The Provincial Medical Officer appointments continued as has been customary to be made generally from the cadre of Senior Medical Officers, but the large and thickly populated Lake Province was administered by an Assistant Director of Medical Services. This administrative machine continued to show itself to be a satisfactory one in the circumstances obtaining in the territory.

3. Central and Local Government and voluntary agencies continued to co-operate in the provision of the territory's curative services. Hospital services remained in the sphere of Central Government and the voluntary agencies, and local authorities continued to provide dispensary services in rural areas. General supervision of medical activities of local authorities and voluntary agencies was exercised by district and provincial medical officers.

4. The demand for medical services throughout the territory continued to be great. Virtually all medical units of whatever nature were busy although there was in many cases a reduction in the numbers of in-patients and out-patients dealt with. Demands for additional services were frequent and such development as was possible during the year was unable completely to meet these demands. There was substantial development but it was very definitely restricted by reason of financial limitations. The Medical Five Year Development Plan served as a general outline, but the time schedule which was originally attached to it could not be adhered to and in some aspects of the Plan progress was minimal. Nonetheless services were maintained and modest advances were in certain places achieved, advances which were assisted by economies and the streamlining of the departmental organisation which was the pre-occupation of the whole Department throughout the year.

5. The general financial background of the territory was such as to make it clear that the relatively rapid development of medical services which took place in the early 1950s would not be possible in the immediate future, and in the latter part of the year doubts began to



arise as to whether sufficient funds would be available in future accounting periods for services to be maintained at existing level. Thus toward the end of the year under review departmental estimating for the financial year 1959/1960 was undertaken in a most unfavourable financial climate. Nonetheless these estimates were finally submitted in a form which it was hoped would still allow for slow but essential progress without there being any significant reduction in the services as they existed at the end of 1958.

6. During the year the capital programme of the Development Plan made steady progress. A great deal of work was done at the new Princess Margaret Hospital, Dar es Salaam, and the last unit of this institution, namely, the X-ray and theatre block, was commenced as the year closed. It became clear, however, that this new hospital will not be ready to receive patients or be fully functioning during 1959, but there was clear expectation of it being brought into use at the beginning of April, 1960.

7. An important capital work which was commenced in the second half of the year was a new out-patient department for Moshi Hospital and good progress was made with this. Work on the new hospital at Maswa which has continued for a longer time than was either normal or desirable was completed, and this unit will be fully operative early in 1959. At Sumbawanga work on the new hospital continued but this project still remained unfinished at the end of the year. Work on a new ward at Tarime was undertaken as the first step to replacement of the existing unsatisfactory dispensary buildings by a new standard type district hospital. At Tabora an important improvement was achieved by the erection of a services block of the standard type designed for the larger provincial hospitals.

8. The two new 60-bed hospitals at Kibondo and Geita, the construction of which was completed at the end of 1957, operated very satisfactorily throughout 1958 and provided improved services in these two districts. Geita hospital was very rapidly under severe pressure, particularly as for financial reasons it was only possible to staff and use 40 beds at this hospital. This was also the case at Kibondo, but here pressure was not so severe and the accommodation made available proved itself to be able reasonably to meet the demand placed upon it.

9. The new Galanos block at Tanga was also brought into use early in 1958, but here again financial limitations made it necessary for only 100 of the 150 beds to be staffed and used. Nonetheless the facilities of the new block provided a very great improvement at this extremely busy hospital.

10. In Dar es Salaam the third out-patient dispensary at Magomeni was brought into operation in February and for the remainder of the year provided greatly improved facilities in the town. It is of the same design which has proved itself to be very satisfactory in the two other dispensaries at Ilala and Mnazi Moja.

11. In the rural areas there was, as in past years, a steady increase in the number of dispensaries provided by the Native Authorities, but the most significant development in these areas was the establishment of the first 10 health centres of the 40 planned to be established by 1961. In the majority of cases these health centres, following the lines of the Development Plan, were created round the nucleus of existing dispensary units, but in one notable instance at Misungwi in the Mwanza District an entirely new and elaborate health centre costing some £15,000 was provided. The performance of these units during the second half of the year proved their usefulness and their popularity and served as an example for the development of further similar centres in the future. There is little doubt that the second 10 planned will be in operation during 1959 and there is confidence that at least the 40 planned will be functioning by 1961.

12. The voluntary agencies too in a number of instances added to their existing medical facilities, and as in past years continued to contribute a very important part of the territory's curative services. Although no new mission hospitals were opened, additional accommodation was provided at a number of hospitals and dispensary work based on these hospitals showed some development.

13. Plans for the training of local staff were developed on the lines of the Five Year Plan and departmental training of nurses both male and female was concentrated at the Princess Margaret Hospital Training Centre, Dar es Salaam. Although the new training school was not available during the year this concentration was made possible by utilising hostel accommodation to provide teaching facilities. At the end of the year the Health Training School at Kongwa which has been responsible since 1952 for the training of assistant health inspectors was closed down. It will start the new session at the beginning of 1959 in the Princess Margaret Training Centre, Dar es Salaam, where facilities will be much better than those at Kongwa. There was a further increase in the intake of medical assistant trainees and this was also possible in the case of nurses. However, the erection of a second training school for health nurses at Moshi had to be deferred on financial grounds and no increase in the intake of this important category of staff was possible.

14. Once again rains were generally adequate throughout the territory and there was no significant shortage of food supplies. As in the past, however, cases of malnutrition did occur and there is no doubt that a real problem in this regard exists, the solution of which lies in combating ignorance and raising the general economic level.

15. There was no major epidemic outbreak during the year but smallpox continued to occur in many parts of the territory. There was, in fact, a considerable increase in the number of cases reported and a substantial increase in the number of deaths.

16. A marked decline in the incidence of poliomyelitis occurred and although the infection appeared sporadically in many parts of the territory the most important concentration of cases occurred in the Masasi District of the Southern Province.

17. A slight increase in the number of sleeping sickness cases was recorded as compared with the previous year but, in fact, the incidence was less than half of that of 4 years ago. The increase that did take place was accounted for by an outbreak in the Kasulu District in the Western Province and a small localised outbreak in the Northern Province.

18. Tuberculosis continued in many areas of the territory to be a major preoccupation and as great a proportion of the Department's resources as reasonably could be was devoted to dealing with this infection. It was not possible to increase the number of special beds but significant advance, particularly in the Northern and Southern Provinces, was made with the development of out-patient treatment facilities for this infection.

19. Once again the Kibongoto Tuberculosis Hospital, the Infectious Diseases Hospital, Dar es Salaam, and the Pathology Laboratory, Dar es Salaam, continued to participate in the tuberculosis therapy trials organised on an East African basis by the Medical Research Council in the United Kingdom. The Tuberculosis Unit at Kongwa was also included in this trial.

20. Although a census of the Tanganyika population was carried out during 1957 final figures were not available until well on in 1958. Total figures compared with those obtained at the previous count were as follows:—

				European	Other Non-African	African	Total Population
1948 Census	...	...	...	10,648	59,512	7,407,517	7,477,677
1957 Census	...	...	...	20,598	102,532	8,665,336	8,788,466

21. Once again departmental conferences of Provincial Medical Officers and Medical Officers were held in Dar es Salaam in October, and proved themselves to be most valuable. For the first time one of the days allocated to the medical officers was devoted to a clinical meeting which was organised by the Medical Superintendent and the Specialists in Dar es Salaam. This was a most valuable feature of the Conference week and appeared to be greatly appreciated by all who participated.

22. Once again no major legislation affecting the public health was enacted during the year. Work continued, however, on the draft Public Health Bill as well as on a new Pharmacy and Poisons Ordinance and a new Medical Practitioners' and Dentists' Ordinance, and it is anticipated that some at least of these measures will appear on the statute book in 1959.



## II.—STAFF

23. Departmental staff was generally under increased pressure, particularly as in certain categories shortages continued to be serious.

24. With regard to medical officers, although temporary difficulties occurred from time to time throughout the year, in general the position was not acutely unsatisfactory.

25. With regard to nursing sisters, however, the position was much less favourable and overseas recruitment was quite unable to meet the substantial wastage which is continuous and inevitable in this cadre. It is estimated that a total of 145 nursing sisters is necessary to meet the present needs of the Department. At the end of the year the total number available was 114 and of these 43 were temporary officers, in general re-employed married women. In spite of the expansion of services which has taken place, there has been a steady decline since 1957 in the number of nursing sisters available and it is clear that should the decline continue a serious situation will quickly arise. During the year the total number of recruits from overseas was 8 and wastage amounted to 23. An important cause of the wastage, as one would expect, was marriage, and some 10 officers resigned on this account. A proportion of these, however, were not lost to the Department as they were re-employed on temporary terms. It is perfectly clear that without these temporary officers the general nursing service could not possibly operate at its present minimum level and it is essential that there be improvement in overseas recruitment.

26. Very real difficulties were experienced on account of vacancies in the establishment of dental officers for the greater part of the year, and a stage was reached when it became impossible to man any of the upcountry stations to which a dental officer is normally posted. In addition those parts of the territory which are customarily provided with dental services by safaris of dental officers were for long periods completely deprived of dental facilities. The year closed, however, on a more satisfactory note as all but one of the established dental officer posts had been filled and a recruit was in sight for the remaining vacancy.

27. Shortages of local staff were also troublesome particularly in the cadre of medical assistants. The output of this category from the training school was barely sufficient to meet the requirements of the newly-opened health centres and although the intake in this cadre was increased in 1957 and again substantially in 1958, the effects of these increases will not be felt until 1960 at the earliest. This applies equally to nurses and, although the output of the nurses training schools has undoubtedly raised standards in the hospitals throughout the territory, too great a proportion of the staff of these hospitals is still made up of untrained personnel, and it will be a good number of years before the hospital services will be staffed as they should be.

28. A further very real staff problem arose late in the year when financial difficulties led to the cessation of all recruitment. The effect of this was particularly felt with regard to subordinate service personnel as the turnover in this group is substantial and it was not possible to fill the vacancies which occurred with such frequency in this group. Although it was essential, in order to maintain services, for the strict rule to be relaxed in special cases, the Department was seriously feeling the pinch of shortage of subordinate staff at the end of the year.

29. The following table indicates the more important losses and gains in senior staff during the year:—

1958					New Appointments	Retirements, etc.
Medical Officers	...	...	...	...	7	10
Dental Surgeons	...	...	...	...	2	2
Assistant Surgeons	...	...	...	...	3	1
Medical Officers (E.A.)	...	...	...	...	—	—
Assistant Medical Officers	...	...	...	...	1	—
Nursing Sisters	...	...	...	...	8	23
Health Visitors	...	...	...	...	5	1
Charge Nurses (Mental)	...	...	...	...	1	1
Health Inspectors	...	...	...	...	1	2



## PART TWO—PUBLIC HEALTH

### III.—COMMUNICABLE DISEASES

#### (A) DIRECT INFECTIONS

##### *Smallpox (Variola)*

##### REPORTED INCIDENCE 1954/1958

					1954		1955		1956		1957		1958
Cases...	...	...	...	...	928	...	542	...	605	...	856	...	1,176
Deaths	...	...	...	...	28	...	15	...	21	...	38	...	94
Case Mortality per cent	...	...	...	...	3.0	...	2.8	...	3.47	...	4.4	...	7.9

30. Once again cases of smallpox were recorded in all eight provinces of the territory, but by far the largest number of cases—in fact almost half of them—was reported from the Western Province. Within this province in only two districts—Kibondo and Kahama—were no cases of the infection recorded, whereas in the Kasulu and Kigoma areas 300 cases were reported and there were 30 deaths. The highest mortality rate was, however, recorded in the Ufipa District where there were 36 deaths in 106 cases.

31. There is no doubt that a very large proportion of the cases recorded were of variola minor but the major infection with its substantial mortality was clearly encountered in Kasulu, Kigoma and Ufipa.

32. The Kasulu/Kigoma outbreak very probably originated in Ruanda Urundi spreading first to Kasulu and then down to Kagunga on Lake Tanganyika from whence it spread in the Kigoma District. The outbreak in the Ufipa District may perhaps have been carried from Northern Rhodesia by migrant labourers entering the territory to be recruited for the sisal plantations.

33. The Lake Province recorded the next highest incidence and here 402 cases were reported, 138 of them from Ukerewe Island. It was considered that only 7 of the cases seen were variola major.

34. In the other provinces the number of cases was relatively small although in the Mpwapa District of the Central Province a sharp outbreak of variola major with 4 deaths among 11 cases occurred in a Masai band that had entered the district from Masailand. It was felt that the fact that this area had been systematically vaccinated in 1957 prevented a serious outbreak.

35. In all areas where the infection was encountered vaccination campaigns were mounted and these were of considerable extent in the areas of greatest incidence. For example, 60,000 people were vaccinated in the Ukerewe area, 42,000 in the Singida District, some 38,000 in the Iringa District, and 70,000 in the Newala District of the Southern Province. The outbreaks mentioned occurred in the rural areas and the urban centres were hardly affected at all. No infection was recorded during the year in the territory's seaports.

##### *Poliomyelitis*

##### REPORTED INCIDENCE 1954/1958

					1954		1955		1956		1957		1958
Cases...	...	...	...	...	170	...	123	...	466	...	386	...	187
Deaths	...	...	...	...	12	...	3	...	34	...	11	...	6
Case Mortality per cent	...	...	...	...	7.0	...	2.4	...	7.29	...	2.8	...	3.2

36. The overall incidence of this infection was very much lower than in the two previous years and there were substantially fewer deaths. It was reported from all but one province in the territory, but in general the number of cases was small. In the Southern Province, however, there were approximately 80 cases and 4 deaths. The main centre of this outbreak was in the Masasi District and there are indications that this may be an area of endemicity of the infection. However cases occurred widely over the eastern part of the province particularly in the towns of Mtwara and Lindi. Of the 4 deaths which occurred in this outbreak it is noteworthy that three of them were Europeans.

37. The Lake Province reported 27 cases generally scattered throughout the province but with Bukoba District once again having the greatest share, there being 17 cases in the town and district.

38. In the Kibondo District of the Western Province the focus of infection which was responsible for the severe epidemic of 1956 was quiescent. Only isolated cases occurred and no deaths were reported.

39. Elsewhere in the territory cases only occurred sporadically and created no major problem. Anti-poliomyelitis vaccination continued to be offered particularly to the vulnerable age groups but the demand for protection was not nearly as great as one would have anticipated. The demand for third doses of the vaccine was comparatively slight.

### *Leprosy*

40. There are in the territory 19 leprosaria. Of these 5 are maintained by Government and the remainder by Missions or by Native Authorities. The British Empire Leprosy Relief Association gave substantial assistance to a number of these leprosaria. Not all of these institutions can be considered to be entirely satisfactory and there is considerable variation in the standards of treatment provided. There is, however, a great deal of interest in the problem and real efforts were made to improve those leprosaria which were for some reason or another sub-standard. For example, in the Central Province the two leprosaria are unsatisfactory by reason of the fact that the land on which they are sited is exhausted and unable to support the considerable numbers of patients settled in their vicinity. There is good prospect of one of these two leprosaria being re-sited in the near future and preparations are well advanced at Iambi in the Iramba District to which the Mkalama leprosarium will in due course be transferred. The Mission authorities responsible for the other leprosarium at Makutapora have spared no efforts in their search for a more satisfactory site. In the Western Province the large leprosarium at Sikonge operated by the Moravian Mission functioned very satisfactorily and the admission rate of lepromatous cases was gradually increased. At this leprosarium a clean babies' home is under construction to enable children born in the leprosarium to be segregated from their infectious parents. Funds for this work were provided by the British Red Cross Society and the London Mission to Lepers. In the Rungwe District of the Southern Highlands Province the effective leprosy organisation which existed was maintained with some difficulty as it was found necessary to transfer the medical officer in charge of the Government leprosarium at Makete to undertake the building up of leprosy work based on Chazi leprosarium in the Eastern Province. Nevertheless, supervised by a medical officer from Tukuyu, the work continued reasonably satisfactorily at Makete and the number of patients resident at the end of the year was 528. The extensive out-patient clinic organisation was maintained.

41. At Chazi, from March onwards, there was greatly increased activity when the medical officer was posted to the institution. Admissions increased and in spite of the substantial number of persons whom it was found possible to discharge, the total number in the institution at the end of the year was 350. Considerable work was done to revive and develop out-patient dispensary treatment of leprosy based on the Chazi leprosarium. Five new clinics were opened during the year bringing the total number in the province to 31. The building programme at Chazi institution continued and there was substantial development of the large agricultural estate which is managed by a BELRA worker. The profits from this venture are at the disposal of a welfare committee for the improvement of conditions within the area of the settlement.

42. In the Southern Province also increased emphasis was placed on out-patient treatment and new clinics were opened in a number of districts. In the eastern part of the province leprosy work is centred at Mkunya leprosarium which is administered by a committee composed of representatives of the Native Authorities in the area, Government and the U.M.C.A. Mission. It is financed by the Native Authorities, with substantial assistance from BELRA, augmenting the profits from the leprosarium's cashew nut plantation. The out-patient clinics centred on this leprosarium continued to do very good work indeed.



43. The out-patient leprosy treatment organisation which had been built up in the Tanga Province came under review following the death of the officer whose work this had been for a number of years. It was not found possible to replace him and thus reorganisation was effected which has enabled the treatment scheme to be continued.

44. The only province in the territory in which the disease is of little importance is the Northern Province. Very few cases are diagnosed in the hospitals here and those that were seen were almost invariably immigrants from other provinces. A small 30-bedded leprosarium is maintained in Moshi for the treatment of infectious cases.

45. In spite of the very substantial amount of work which is being done to search out this infection and to treat it, there has been no indication of any material increase in the incidence of the infection during the year. As was stated last year, however, it can equally be said that there is nothing to suggest that the efforts made to control the disease have achieved any significant reduction in its incidence.

### *Tuberculosis*

46. The public health importance of this infection was at least as great as ever throughout the year. In few districts of the territory is this infection not one of the major problems and public awareness of this fact, and realisation that treatment is effective, has caused the disease to obtrude more and more in the activities of not only the Department but of many Mission hospitals as well. During the year there was no material increase in the number of special beds available for the treatment of tuberculosis, but it can be said that in general better use was made of these beds and this, together with increased emphasis on the organisation of out-patient treatment, was responsible for some advance. The only institution in the territory devoted solely to the treatment of tuberculosis remained Kibongoto Sanatorium, the bed strength of which at the end of the year was just over 300. The number of cases of tuberculosis admitted to the sanatorium during the year was 1,561 as compared with 1,291 in the previous year. This increase was achieved by a quicker turnover of patients and the transfer of considerable numbers for continuance of treatment to other hospitals in the Tanga and Northern Provinces where out-patient treatment schemes functioned. In addition the number of chronic anti-biotic resistant cases was fewer than in previous years thus making available more beds for the treatment of new acute cases. This sanatorium is the main treatment centre for the Northern and Tanga Provinces, but subsidiary tuberculosis units were maintained at Mbulu, Korogwe, Muheza and Tanga, and in addition further accommodation for tuberculosis patients was provided at Monduli hospital to serve, particularly, Masailand. From all of these sub-centres clinics for the assessment of cases and for out-patient treatment were maintained, and very useful work was carried out. Considerable attention was devoted to health education and talks and demonstrations on the prevention of infection were given throughout the Northern Province by staff from Kibongoto Sanatorium.

47. In the Moshi District a notable BCG vaccination campaign of schoolchildren was carried out and no less than 32,365 children were BCG vaccinated. In addition a further 2,000 children in the North Pare District were protected. In the tuberculin testing carried out prior to BCG vaccination in the Moshi District, a surprising variation in the percentage of Mantoux positive children was observed from school to school, the highest incidence being 62 per cent and the lowest 10 per cent. The average figure for middle schools in the Kilimanjaro area was 30 per cent Mantoux positive.

48. In spite of the substantial amount of anti-tuberculosis work carried out in the Northern and Tanga Provinces and also in spite of definite improvement being observed in some areas, the infection continued to be a most serious and embarrassing problem in the Tanga Province. This resulted from the large numbers of cases occurring among labourers on the sisal estates, the infection being found in men recruited from distant areas of the territory and even from outside the territory who had not been medically examined at source. Much discussion took place between representatives of certain of the estates and the Provincial Medical Officer in an endeavour to meet this problem, but no satisfactory solution has so far been found.



49. In the Southern Province good progress was made with the anti-tuberculosis scheme being operated by a tuberculosis officer with the assistance of Government and Mission hospitals. This work was hampered to some extent owing to shortage of medical staff for the first half of the year, but in the second half of the year the tuberculosis officer was able to devote all of his efforts to the scheme which has developed vigorously. He is now able to spend 50 per cent of his time travelling in the province supervising the treatment centres and advising on treatment and organisation. The total number of beds available in the scheme is 225 and these were fully occupied throughout the year and waiting lists were maintained at most centres. The total number of new patients notified to the tuberculosis officer at his headquarters at Nachingwea was 665 and the number of patients discharged to out-patient treatment in a sputum-negative condition was 293. More than 500 out-patients on chemotherapy treatment were under supervision at the end of the year. It is felt that a very good start has been made in dealing with the problem of tuberculosis in the eastern portion of the Southern Province.

50. In the Central Province too there was progress but not as great as had been hoped for, the limiting factor being finance. The 60-bed tuberculosis unit at Kongwa hospital worked at full pressure throughout the year and all beds were fully occupied. Out-patient clinics were held in Dodoma by the tuberculosis officer regularly twice each month and he also was able to pay a few visits to Kondoa to organise out-patient and follow-up treatment there.

51. In the Southern Highlands Province work on the new tuberculosis hospital of 104 beds for the Baptist Mission made good progress and it is anticipated that this institution will be functioning about May, 1959. This hospital will then become the treatment centre for the whole province working in close liaison with other Government and Mission hospitals.

52. In the Lake and Western Provinces little advance was possible although at Sumve and Kagondo in the Lake Province increased interest was shown by the Mission authorities in this problem and bed accommodation was increased with the specific purpose of treating cases of tuberculosis. It is hoped that it will soon be possible to develop an organised anti-tuberculosis scheme in this province on the same lines as that in the Southern Province.

#### *Enteric Fever*

53. Enteric fever continued to be reported from all provinces throughout the year. Of the cases reported for the territory as a whole approximately half were in respect of Tanga Province. There was little doubt that the greater number of these cases were water-borne as there is serious pollution of most of the permanent streams in the province. The only real solution is the provision of satisfactory protected water supplies, but in the case of the rivers which form the main source of domestic supply in the province this is very difficult indeed. At one large sisal estate an efficient chlorinating plant for their water supplies was installed and worked very satisfactorily, but the provision of similar treatment plants for the many hundreds of villages dependent upon polluted supplies is a matter which is at present economically impossible.

54. Bukoba in the Lake Province experienced a sharp rise in cases of typhoid and/or para-typhoid fevers mainly in one or two more or less localised areas. Again a small outbreak of enteric fever occurred in the Kasulu District and was due to pollution of the Makere river at the end of the dry season in October. Accurate figures of the number of cases are difficult to obtain but it is believed that some 50 cases did occur and that there were 10 deaths. In the case of those that died, diagnosis was confirmed by post-mortem examination.

55. Two small outbreaks of what was thought to be bacillary dysentery occurred at Mirembe Mental Hospital and at the Central Prison, Dodoma. In the mental institution the incidence of disease was not high, but detailed investigation was carried out as the drainage system was at fault and a serious outbreak was feared.

The investigation failed to bring to light any of the bacillary dysentery group of organisms. It did reveal however, a considerable number of typhoid carriers, some of whom were food handlers.

56. The prevalence of dysentery continued to be high in most parts of the territory. The actual type is generally undefined but it is probable that bacillary dysentery is common. It is likely that this group is, after malaria and respiratory conditions, one of the greatest causes of morbidity.

#### *Trepanematosi*

57. The incidence of yaws varies very markedly from district to district. It is probable that the highest incidence occurs in the Kibondo/Kasulu Districts of the Western Province and in the Rufiji and Kilosa Districts of the Eastern Province. The infection occurs however, in lesser incidence in all areas. No major anti-yaws campaigns were carried out during the year although it had been hoped that it would be possible to mount such a campaign with the assistance of the World Health Organisation and UNICEF in the Kasulu/Kibondo Districts and the coastal regions of the Eastern Province. This campaign had for various reasons to be deferred but it is hoped that it may be possible in the future to initiate it in the first instance in the coastal regions.

58. Very little accurate information is available as to the true incidence of syphilis in the various districts. The infection tends to be reported most frequently from the urban areas and hospital statistics suggest that in general incidence in the rural areas is not high. There are exceptions to this notably in Masailand and in Bukoba. Reports from the latter district indicate that fewer cases are appearing for treatment and this is attributed by the local medical authorities to the increase in the amount of black market penicillin circulating in the district. It cannot be claimed that any material progress was made in meeting the problem of venereal disease in the territory.

#### *Cerebro-spinal meningitis*

59. A much larger number of cases of this infection was reported, there being 1,419 cases with 145 deaths as compared with 687 cases with 93 deaths in the previous year. It will be observed from these figures that in spite of the increased prevalence of the infection the case mortality rate was lower. The heaviest incidence of the infection fell upon the Lake and Western Provinces. In the Lake Province a total of 817 cases were reported, the area most affected being Sukumaland. Although at no time was it possible to demonstrate any particular epidemic centre or source of spread from one area to another, the increase in incidence commenced in the dry months of the year and the peak was reached in September and October. Cases were in general of a mild semi-chronic character and the 45 deaths which occurred were mostly ascribed to late reporting for treatment. In the Western Province there were 205 cases with 30 deaths. The area particularly affected was the northern part of the province consisting of the districts of Kibondo, Kahama, Nzega and Tabora with the heaviest incidence in the Nzega District. Here again the case mortality rate was not unduly high. In the Eastern Province although the number of cases was not high the incidence was very much greater than in the previous year there being 35 cases with one death as opposed to 7 cases and no deaths in 1957. The pattern here was repeated in various other provinces, the cases being sporadic and unconnected.

#### *Anthrax*

60. This infection continued to be reported with some frequency particularly from Central, Western and Eastern Provinces although it also occurred elsewhere. The highest incidence was in the Singida District of the Central Province where 238 cases were reported with one death. Some 19 cases were treated in Dodoma hospital and 28 at Kondoa hospital. Here, too, the death rate was low due to successful treatment although in a number of cases seen at Dodoma hospital the site of infection was the mouth and throat. No cases of pulmonary anthrax were reported.



61. For the first time for some years there was a sharp localised outbreak in the Geiro area of N. Kilosa District. There were 33 cases, mainly cutaneous, and 7 deaths. It was reported that the disease had occurred among goats and was apparently spread by the people bringing goats into their houses at night. There is no doubt that this infection is no longer the very serious matter it used to be because of the effectiveness of modern methods of treatment.

#### *Rabies*

62. For the second year in succession rabies among dogs and jackals caused continued anxiety throughout the year in the Sumbawanga District. A total of 27 people were admitted to hospital for immunisation after being bitten by rabid dogs or jackals. Without exception all specimens of jackal brain sent for examination to the Veterinary Research Laboratory were reported to be positive for rabies. However no deaths occurred among the persons treated in hospital although 3 deaths were reported from outlying areas.

#### *Influenza*

63. The year's experience of this infection was very much less severe than in 1957. Although a number of small outbreaks occurred they were limited in numbers and caused no major disruption as in the previous year. In March and April there was a sharp outbreak on Ukerewe island which at first appeared to be more serious than the previous year's epidemic. It however petered out fairly rapidly. A minor outbreak also occurred in Bukoba gaol with 49 inmates being affected, and in the Musoma District 41 cases were reported.

#### *Infectious Hepatitis*

64. In the latter half of the year Dar es Salaam experienced an unusually high incidence of this intractable infection, cases being recorded with some frequency particularly among the European and Asian inhabitants. The infection was also reported from as far afield as Bukoba and it appeared to be endemic at St. George's School, Kongwa, throughout the greater part of the year. At the school the peak number of cases occurred in October, nine of them being schoolchildren and one a matron of the school.

### (B) VECTOR-BORNE INFECTIONS

#### *Plague*

##### REPORTED INCIDENCE 1954/1958

					1954			1955			1956			1957			1958
Cases...	...	...	...	...	—	...	—	...	5	...	5	...	—				
Deaths	...	...	...	...	—	...	—	...	1	...	1	...	—				
Case Mortality per cent	...	...	...	...	—	...	—	...	20.0	...	20.0	...	—				

65. No bacteriologically confirmed cases of this infection were reported, although cases occurred in the Northern and Tanga Provinces which were suspected on clinical grounds of being plague. In the Northern Province 4 cases occurred in the labour lines of a farm at Sanya Juu in the Moshi District. The patients were all male adults and they responded well to treatment with penicillin. Preventive measures were taken and no further cases occurred.

66. Again, in the South Pare District of the Tanga Province 3 incidents occurred in which there was suspicion of plague. Investigation, however, did not confirm this in spite of the area concerned being one of known plague endemicity. It is not unlikely that further cases of plague will be found in this part of the territory. It has up till recently been a very isolated and inaccessible region but a road has now been constructed into the Chome valley which is known to be the endemic focus in the Tanga Province.

67. The ecology of plague vectors was investigated during the year in two districts, namely Morogoro and Singida, by entomologists of the Malaria Unit. In the Morogoro District which is not a plague area the studies were limited to *Rattus* and its fleas. Over the 12 months 1,393 rats and 242 fleas were collected. During the dry months of the year, namely,



June to November, the flea index was 0.32 and during the wet months December/May, 0.30, i.e. little difference was detected in relation to climate. During the principal harvest month, August, the index was 0.68 and during the non-harvest months, November/July, 0.24. The considerable rise related to harvesting and storage of grain, the rats concentrating in the stores with greater opportunity for flea infestation. *Xenopsylla cheopis* formed approximately 25 per cent and *X. brazillensis* approximately 75 per cent of the flea fauna.

68. In the Singida District which is the particular enzootic plague area of Tanganyika studies took place round Ilongerero near Singida township. The number of rodents caught was 384 and 354 fleas were obtained. The second important plague wild rodent, *Mastomys coucha* ( the Multimammate Mouse), was common round Singida township and may well have played an important part in the past in the spread of the disease throughout the Singida and Mbulu Districts. The flea indices obtained at Ilongerero were 2.5 in respect of *Rattus* and 1.9 in the case of *M. coucha*.

*Relapsing Fever*

69. Once again the incidence of this disease appeared to be unchanged and it continued to be prevalent mainly in the Western, Lake and Central Provinces. In Sukumaland of the Lake Province, 157 cases were reported from Shinyanga in October and from Kwimba a total of 269 cases was reported. It is considered that the majority of cases occurred at or from two persistent foci, and working from the health centres at Kishapu and Misungwi and from Shinyanga township the health staff made steady progress in introducing gammexane dusting of houses in rural areas. There is no evidence however so far that this measure is affecting the incidence of the disease.

70. In the Central Province a total of 225 cases was recorded from all districts. Many of the cases were found on routine blood examination and the infection did not appear to be giving rise to symptoms or to be causing the patient any inconvenience. Mortality was negligible and treatment with penicillin or NAB again appeared to be equally effective.

*Sleeping Sickness (Human trypanosomiasis)*

REPORTED INCIDENCE 1954/1958											
1954					1955			1956		1957	
Cases...	...	...	...	...	1,230	...	923	...	646	...	411

73. Although the infection throughout Tanganyika is with *Trypanosoma rhodesiense* a small focus of *T. gambiense* infection exists at Kagunga on Lake Tanganyika 30 miles north of Kigoma. Only 5 new cases were diagnosed at Kagunga during the year and the position is now so satisfactory that it is probable that the prophylactic injections of pentamidine given in December will be the last of the periodic mass prophylactic injections to be given to the population of some 3,000. These prophylactic injections were commenced five years ago and the risk of infection appears to have been reduced to negligible proportions by this measure. The position is now being reinforced by the Tsetse Department which in June started spraying the *Glossina palpalis* habitats on the lake shore north of Kigoma with a view to eradicating the fly. Using 5 per cent dioldrex considerable success has been achieved and later surveys showed only few places where a second application was required. These were in areas in which 2 per cent dioldrex was used instead of 5 per cent because of cultivation and in the chimpanzee reserve where arcotine was used lest the chimpanzees were affected. With the elimination of the fly the infection, which has given rise to 350 cases since 1952, will cease although there will remain the risk that fly may enter the area any time from across the Ruanda Urundi border. However the Belgian authorities have co-operated by spraying on their side of the border.

74. In the Lake Province there was a rise in incidence in all major sleeping sickness areas. In the Biharamulo District 70 cases were reported which was a threefold increase over the previous year's figure. The increase was a general one with the notifications fairly evenly distributed throughout the year, and it was in part due to considerable road building activity which brought gangs of labourers into the sleeping sickness areas.

75. The focus of infection in the Maswa District showed a slight increase in activity and it is now clear that this outbreak which started in 1956 will continue in spite of bush clearing which was carried out along the Duma river during 1957 and 1958. A great deal more fly will have to be cleared out before the position is safe and the continuance of this work for several years will be necessary.

76. In the Northern Province the main incident with regard to sleeping sickness was the sudden outbreak among the members of a gang clearing *G. Swynnertonii* tsetse bush near Kitete below the Rift Wall north of Mto-wa-Mbu. It was in this area that three members of a small hunting party including two Europeans were thought to have been infected in June, 1957, although subsequent investigations failed to produce evidence confirming this as an infected area. In June, however, two members of a clearing gang of 170 men working near Kitete were diagnosed as having sleeping sickness and by mid-July there were 20 cases. Fortunately by this time bush clearing was complete and the gang was withdrawn to a fly-free area for three weeks' observation. The Kitete area being uninhabited there was no possibility of the outbreak continuing once the gang had evacuated but the area is still infected as a policeman contracted sleeping sickness there in October while escorting a cattle trek through the area.

77. In the Ulanga District of the Eastern Province the position remained much as in the previous year, there being 17 cases reported mostly from Malinyi in the south-west of the district. Sleeping sickness settlements established some years ago had over the years become somewhat disorganised and a drive was initiated to improve them.

78. In the Southern Highlands Province some concern was felt when a case of the infection was diagnosed in Chunya hospital towards the end of 1957. The patient had come from the Lukwati area near Lake Rukwa and there was some concern at the possibility of an outbreak occurring there particularly in view of the amount of prospecting being carried out in the region by a large exploration company. An extensive blood sliding survey in January however failed to reveal any further infections.

79. In the Southern Province exactly the same number of cases were reported as in 1957 and once again the Kilimarondo/Nambwa area of the Nachingwea District was responsible for the majority of the cases.

80. The Sleeping Sickness Specialist stationed at Tabora in the Western Province continued his investigation started in 1957, into the efficacy of nitro-furazone ("furacin") in the treatment of the advanced stages of *Trypanosoma rhodesiense* sleeping sickness. The



investigation has been hampered by the remarkably low incidence of the disease in the vicinity of Tabora, but of 9 patients, 8 of whom had relapsed rapidly after treatment with Mel. B, 5 showed very considerable improvement on furacin and in two of these the improvement was maintained over the year. The drug failed in other cases and at present indications are that improvement may be only temporary except perhaps in a few fortunate individuals. There is, however, sufficient promise in this drug, which at the moment offers the only hope when Mel. B has failed, to make very well worth while the continuation of the trials.

### *Malaria*

81. During 1958 the work of the Malaria Division of the Department which has its headquarters at Amani in the Tanga Province was hampered by staff shortages, but nevertheless still managed to do very useful work. The Division was responsible for the supervision of anti-malaria work generally throughout the territory, but it also carried out useful investigations into the use of insecticides and anti-malaria drugs both in the field and in the laboratory. Mosquito control work continued to be based primarily on drainage and larvicides, the latter consisting of weekly oiling with high spreading malariol containing 5 per cent DDT or dusting with DHC formulations. The efficacy of these measures was routinely assessed at most stations by weekly adult anopheline catching in pyrethrum sprayed houses. Imagocidal treatments, using residually acting dieldrin, were carried out at Mpanda, Mtwara, Kitangare, Marvera, at various institutions and at Ukonga international airport, Dar es Salaam. Special malariometric and entomological surveys were also carried out at Mpanda, Marvera, Mto-wa-Mbu and in rural areas of the Tanga Province.

82. In the Pare District the Pare/Taveta malaria scheme of residual spraying of houses was continued by the staff of the East African Malaria Institute. One cycle of spraying was completed during 1958 and the final spraying of the scheme commenced towards the end of the year. The routine malaria and anopheline research continued. *A. gambiae* continued to be present in very small numbers and *A. funestus* to be absent. Studies of the resting and feeding habits of the remaining *A. gambiae* were pursued as were those relating to the sorption of dieldrin on the mud walls of Pare housing. It was observed that the haemoglobin levels of all human age groups continued to rise and it was also observed that the birth rate too was rising—clear indications of the effectiveness of this work. Chemoprophylaxis using chloroquine and pyrimethamine was commenced in Kisiwani settlement in preparation for mass use of drugs should this prove to be necessary at the conclusion of the residual spraying. Malaria surveillance teams were in training for the follow-up work which will be necessary after the conclusion of the spraying operations.

83. At Mpanda minor settlement the attempt at malaria control by residual spraying to which reference was made in the previous year's report was continued throughout the year and the results obtained indicate that, in the conditions at Mpanda, anopheline control by this method was much more effective than was larviciding and dam clearance. There was a very substantial diminution in the catches both of *A. gambiae* and of *A. funestus* and there was an appreciable decrease in the parasite rates, particularly amongst the young children. As happens with residual spraying, the nuisance caused by culicine mosquitoes increased and this led the population to entertain doubts as to the value of the spraying operations. In an endeavour to offset this larviciding of domestic culicine breeding places was intensified.

84. At Mtwara in the Southern Province where local conditions give rise to drainage and larviciding problems, malaria control by residual spraying was also attempted. In March all housing in the town was sprayed with 50 per cent water-dispersible dieldrin and routine mosquito catches were continued for the remainder of the year. Findings have, however, been inconclusive so far but it is the intention to continue with this experiment in the coming year. Residual spraying was also continued at the Rift Valley settlement of Mto-wa-Mbu and a very substantial reduction in the numbers of anopheline vectors was achieved for at least 9 months following a single spraying with dieldrin-resins. The vector anopheline incidence remained low but once again on account of the increased prevalence of culicine mosquitoes the local inhabitants had no faith in the spraying operations and were opposed to their repetition.



85. As in the past the staff of the Malaria Division carried out a number of useful investigations concerning the use of insecticides and the drug prophylaxis of malaria. Further reference to this work is made later in this report in the section dealing with research.

86. Malaria continued to be one of the main causes of morbidity in the territory and it can again be stated that it was probably the most important single factor in the heavy mortality experienced in the early weeks of life in the endemic areas of the infection. These areas while not covering the whole territory are very extensive indeed and there are few communities whose life is not affected by this disease. It continues to figure very prominently in the returns from all hospitals and cerebral forms with substantial mortality have not been uncommon. Blackwater fever, however, has been only infrequently reported and is now a condition of small significance.

### (C) HELMINTHIC INFESTATIONS

#### *Schistosomiasis*

87. The view is strengthening that this infestation is one of the more important public health problems in the territory. In fact the opinion has been expressed that it is the principal single public health problem in all areas immediately to the south-east of Lake Victoria. There is also definite suspicion that the infection is established on the western side of the lake which was in the past considered to be clear. On Ukerewe island further evidence was built up of substantial ill health with abdominal discomfort and pain in adults being due to the late effects of *S. mansoni* infection. Elsewhere in the territory and throughout the greater part of it schistosomiasis was encountered and there is no doubt that the many water conservation schemes being developed are adding to the schistosomiasis problem. No methods of control of practical application in the general circumstances obtaining in the rural areas of Tanganyika have so far been devised, but in certain local areas where circumstances were favourable efforts at control were made. Such an attempt was made on a large sugar estate at Arusha Chini in the Moshi District with a fair measure of success, but it is clear that investigation is very necessary to provide the knowledge required for a reasoned attack on this problem. It had been hoped that there would be established during the year at the East African Medical Research Institute at Mwanza, a bilharzia investigational team. This did not happen although a malacologist at the Institute worked throughout the year. There were good hopes however, as the year closed that such a team would be established by the middle of 1959 and that it would consist of a medical officer, the malacologist already working at the Institute and an entomologist to be provided by this Department. Financial assistance for this project has been arranged from Colonial Development and Welfare funds.

88. One of the entomologists of the Malaria Division continued with investigations into the ecology of the vectors of bilharzia in the Tanga Province. A number of snail surveys were carried out in the Handeni and Korogwe Districts with the object of assessing the incidence of infection with *Schistosoma haematobium* by sexes and age groups at various places, as a basis for comparison with the infections previously reported in the Tanga District, and to study the distribution of vector snails in different parts of the water system under survey. The urines of 1,061 and 428 people were examined in the Handeni and Korogwe Districts respectively. In the former 17.4 per cent contained ova of *S. haematobium* and in the latter 51.1 per cent. The rate in the Korogwe District where surface water is more plentiful throughout the year closely follows the coastal pattern. In general these surveys in the Tanga Province have revealed that transmission is local and variable and that the difficulties are very great in achieving adequate snail breeding control in the multitudinous small foci.

#### *Ankylostomiasis*

89. All provinces continued to report a wide distribution and high incidence of this infestation, but it was only from the Western Province that an increasing incidence was reported. It is difficult to assess the true clinical significance of this disease, but there is no doubt that it is the cause of a great deal of morbidity particularly in persons whose diet is inadequate.

#### IV.—MATERNITY AND CHILD WELFARE

90. Maternal and child welfare work once again formed an important part of the Department's activities, and the demand for such services continued to increase not merely in the townships but also in the rural areas. Hospitals, health centres and dispensaries with lying-in accommodation reported continuous and increasing pressure in spite of efforts being made to develop domiciliary midwifery services, and as far as may be practicable to keep available hospital beds for abnormal cases. Particularly in the more advanced areas of the Territory the popularity of institutional midwifery continues to grow and this on occasion gives rise to an embarrassing situation. It is certain that it will never be possible fully to meet this demand and that it will be necessary to develop as quickly as may be practicable domiciliary services based upon the health centres and dispensaries in the rural areas. In many districts, however, this will be a very difficult ideal to achieve in view of the scatter of the population and the large distances involved, but there is no doubt that when a sufficient number of village midwives and health nurses are available to work in the rural areas, advance in this direction should be substantial.

91. Ante-natal and infant welfare sessions continued to be held in all the major urban areas and increasing attendances were again observed. From all these centres rural clinics are supervised and in various parts of the Territory a number of additional rural clinics were established during the year. Wherever it was possible to maintain a health visitor steady expansion of this work continued, and in most places has developed up to the full supervisory capacity of the staff available. The demand for clinics to be held at additional centres continued and it is interesting to note that in certain predominantly Muslim coastal districts which had been in the past very conservative in this regard, a real and increasing interest in these welfare services was evident. However a great deal of prejudice and ignorance continues and it will only be by untiring efforts to teach and to demonstrate the value of these services that it will be possible to attack the great volume of ill health and high infant mortality which results from ignorance and low standards of environmental sanitation.

92. In virtually all districts in greater or lesser degree deep-rooted taboos relating to childbirth and the care of infants present a barrier to advance towards healthy living. An example of this is the strong taboo among the Wambulu that if the first baby dies it is the result of some poisonous quality in the mother's milk, and as a result of this belief all the mother's subsequent babies are fed either on cow's milk or on maize porridge. It has been shown over and over again that health staff can overcome these difficulties and that the mothers are responsive to health education. This is underlined by the following quotation from the report of one health visitor:—

“The health of the children provided they are being regularly supervised can be maintained, but it is immediately noticeable as soon as regular clinic attendance is forgotten that the health and progress of the children deteriorate and unfortunately the mothers fail to observe this. With the stage of crawling, worm infestation begins and this definitely has a deleterious effect on the health of the child. A great deal of education needs to be done on this score and every effort made to instil the habits of cleanliness into the women and they to teach their children.”

The health staff, however, fully aware of the foregoing are also fully aware that any relaxation of their efforts to maintain attendances at welfare sessions leads to a rapid return to old and bad habits. One of the more important methods of maintaining clinic attendances was by the holding of mothercraft classes and demonstrations which have a considerable appeal to the people. Apart from the educational effect of these clinics in many places it has been observed that they have a most important effect in filtering out complicated pregnancies and, from a number of hospitals, it has been reported that the majority of the surgical emergencies relating to pregnancy occurred in women who had not previously attended clinics in the area accessible to their hospital.

93. Maternal and infant welfare again formed an important part of the work carried out by hospitals of the voluntary agencies and this added materially to the efforts in this direction made by Government and local authorities. There is no doubt of the magnitude of



the task facing everybody concerned with this work and there is equally no doubt that its expansion is only limited by the availability of personnel and finance.

94. Once again substantial assistance in the way of supplies was obtained from the United Nations Children's Fund to assist the maternity and child welfare services conducted both by Government and by the voluntary agencies. The 10 new health centres which were established by certain local authorities during the year were equipped by this agency which in addition provided vehicles to enable the supervision of the health centres to be more effectively carried out by the Government staff stationed at the respective district hospitals. In addition it provided motor vehicles and cycles to enable the staff of these health centres to exercise their influence over a larger area in the vicinity of their health centre.

## V.—SCHOOL HEALTH

95. During the year it was still only in Dar es Salaam that it was possible to operate a formal school health service. This work was undertaken by the Health Department of the Municipal Council of Dar es Salaam, and regular examination of schoolchildren was carried out by school nurses throughout the year. Defects and abnormalities were, as in previous years, referred to the Government clinic and hospital organization to be dealt with.

96. In the Tanga Province following discussion with the education authorities, a scheme was put into operation for the organized examination of children at primary and middle schools which are situated conveniently close to established medical units. Although by the end of the year it could not be claimed that this scheme was operating entirely satisfactorily or with full efficiency, there was promise that it would develop. In Tanga town routine inspections were conducted by health visitors particularly in the latter part of the year and there is every likelihood that a school health service similar to that in Dar es Salaam should be fully operative in 1959.

97. In other parts of the Territory too, although not organized to such an extent, school health inspections were carried out by medical officers, health visitors, health inspectors and medical assistants.

98. A small but important addition to school health work was the initiation of dental examination of schoolchildren by dental assistants at the six stations to which this new type of personnel was posted for the first time during the year. Although their work was primarily concerned with persons attending hospitals many of whom, of course, were schoolchildren, in Tanga, Lindi, Dodoma and Tabora systematic dental examination in the schools themselves was initiated.

99. Although a number of provinces reported that on the whole the health of the schoolchildren was fairly good, this state of affairs was not universal and even apart from a number of epidemic outbreaks, in some areas a great deal of ill-health was observed among children. Parasitic infestations and skin diseases together with avitaminosis and eye diseases were the most frequently observed conditions. At the boarding schools throughout the Territory the general health of the children was good although these schools felt the impact of a number of epidemics of chickenpox, mumps and whooping cough. As has already been mentioned the occurrence of cases of infectious hepatitis at Kongwa school throughout the year was troublesome and at the end of the year concern was felt at the occurrence of a severe case of diphtheria in the Mbeya school, a rare event in the Territory.

## VI.—HEALTH EDUCATION

100. Throughout the year steady progress was made with health education which attained an increasing prominence in the Department's activities all over the Territory. The work was greatly stimulated by the activities of the Health Education Section which, although based on Dar es Salaam, has spread its influence wide. This Section, although hampered by the unsuitable temporary accommodation in which it worked, had its first complete year as a fully effective unit. The Senior Medical Officer-in-Charge was assisted by a health

visitor, a health inspector and 7 other clerical and subordinate staff, and a great deal of work was carried out under less than ideal conditions. The staff was, however, greatly heartened by the fact that very good progress was made with the new accommodation specifically being built for the Section close to the Princess Margaret Training Centre, and by the hope that it would occupy this accommodation about the middle of 1959. The Section acquired much useful knowledge and experience and many of its ideas were put into practice sometimes with success, sometimes not so successfully, but always providing information as a basis on which to plan future work.

101. During the year important quantities of equipment provided by UNICEF arrived and only a few items requested from this source were outstanding at the close of the year by which time the section was adequately equipped for the production of a wide range of audio-visual aids. A number of wall charts and teaching posters were designed, tested and produced. The subjects dealt with by the wall charts included maternal and child welfare topics, nutrition, schistosomiasis, hookworm, roundworm and the part played by mosquitoes in the transmission of disease. Large quantities of printed leaflets were produced and one leaflet entitled "Three good reasons for having a latrine" proved very useful and so popular as to necessitate the printing of 20,000 copies. Another leaflet "Mama tazama", giving basic information on child welfare matters, proved so popular that the section was unable to produce copies fast enough to satisfy demands. It was observed by the Senior Medical Officer-in-Charge that illiteracy did not appear to be a serious hindrance as somehow the recipient of printed matter always appeared to be able to obtain assistance in having its content communicated to him. The printing of self-explanatory posters was reduced as it was found that this type of material has a low educational value and does not justify the time, money and effort spent in production. Two colour-slide projection series were produced, one on hookworm and the other on tuberculosis, and the building up of the photographic library continued. About 30 large-size (2ft. x 3ft.) framed charts on various health matters were made for exhibition purposes. Flannelgraphs were found to have a good appeal and these were produced in large quantities, so that the section now maintains a large stock of pictures, lectures and boards. A 16 mm. movie film on hookworm was scripted and production started, but the film had not been completed by the end of the year. Radio talks were prepared and given by members of the section. In addition to the printing of material for its own use the section undertook work for other departments, namely, the Social Development, Education and the Public Relations Departments, and to a lesser extent for the Agriculture and Labour Departments. Some 30,000 sheets of print were made during the year mostly in two or three colours, occasionally four and more, and the number of printing operations involved was over 100,000.

102. Perhaps the most important work undertaken by the section lay in the field. In Dar es Salaam the health visitor gave a series of lectures at the Arnautoglu Community Centre on maternal and child welfare subjects (mothercraft) and also on worm diseases and malaria. These lectures were given over a period of about four months and included the training of four women's club leaders who subsequently incorporated health education in their club programmes. This work was carried out in close co-operation with the Social Development Department.

103. At Mwika, a sub-chiefdom of the Moshi district, a small health education pilot scheme was commenced. Following on-the-spot investigations and talks at Moshi and Arusha in January, the health education team prepared material such as programme talks, instructional posters, photographs, projection slides, etc., for the use of instructors in the vicinity of the health centre at Mwika. The scheme itself was started in September under the supervision of the Health Education Section and by this time some 40 potential instructors had been discovered including members of the Social Development Department staff, mission staff, private individuals and the staff of the health centre at Mwika. The test area has a population of 3,000-4,000 served by the health centre, six schools, one teachers' training centre, two women's clubs and a large mission with schools, the co-operation of all of which institutions was obtained. The aim of the scheme was to find out suitable ways and means of approaching the public and to find out to what extent and with what success various



categories of health education instructors drawn from the groups already mentioned can be used. To this end basic information on latrines and worm diseases and on nutrition was spread. The scheme by the end of the year had taught the section a great deal and appeared also to have achieved a fair measure of success.

104. Throughout the Territory all departmental personnel took every possible opportunity to engage in health education. For example in the Central Province opportunity was taken of a mass literacy campaign amongst the Wanyaturu to disseminate information with regard to health and where the Department's activities led to an aggregation of people, particularly women, the opportunity was taken to give health talks. The Department participated also in a number of agricultural shows by organizing health exhibits. These attracted a considerable amount of attention and appeared to the staff concerned to be understood and appreciated by the people. Nonetheless it was the view of the Health Education Section that the educational value of health exhibits at such shows is relatively low.

105. In the Songea district important educative work continued, particularly with regard to nutrition, and departmental staff had full co-operation from the representatives in the district of other departments of Government.

106. Visits to many parts of the Territory were paid by the members of the Health Education Section to assist district medical officers in the development of health education programmes in their districts. A vast amount of work clearly remains to be done and a great deal of research is still necessary to elicit the best approach to the people in any particular area, and what techniques are likely to be effective.

## VII.—NUTRITION AND FOOD SUPPLIES

107. Rainfall was generally well distributed throughout the Territory and reasonably adequate in amount, but poor rains were noted in some parts, e.g. Shinyanga, where reserves were low, and the failure of the short rains at the end of the year in some other parts of the Territory meant that little of the cultivation normally carried out at this time was successful. Although this is undoubtedly a loss, food production should be normal provided the long rains of 1959 are up to standard. From all provinces it was reported that harvests were reasonably satisfactory and up to average, and there were no threats anywhere of famine conditions. Nevertheless malnutrition and under-nutrition continued to be reported from a number of areas as being among their major problems. In such areas protein deficiency in the diet is general and often cassava with its low food value was the staple food. Protein deficiencies in their worst form were seen in advanced cases of kwashiorkor but many cases of less severe deficiencies were recorded. Apart from such protein deficiencies being often due to total animal protein lack in the area because of farming habits, food taboos also affected the diets of pregnant women and nursing mothers. Malnutrition in varying degrees was very frequently seen among children shortly after weaning and also among elderly people, and no doubt remained that malnutrition and under-nutrition remained a problem urgently demanding solution. This problem is met with even in districts plentifully supplied with food and there is no doubt of the part played in its causation by ignorance, prejudice and poverty. Disease also plays its part particularly when it interrupts the planting cycle in agricultural communities living with little margin above subsistence level. Inability to plant food crops at the appropriate time of the year owing to illness often means food shortages later. With the limited resources available to it the Department did what it could to meet this problem, but generally speaking little advance was possible. Nevertheless, although little progress was made much was learned of the underlying causes and there is now sufficient information available to make it reasonably certain that given adequate resources advances may be readily made.

108. The Central Advisory Committee on Nutrition met early in the year and initiated investigation at district level into the problems of nutrition. The work of this body however is hampered by lack of an executive organization, and it is proposed to provide such an organization on simple lines in 1959 by detaching a medical officer for special nutritional

duties. It is intended that he will co-ordinate and collect available information with regard to nutritional problems, will himself carry out investigations and in collaboration with the Health Education Section initiate at district level health education specifically directed to nutritional problems. It will also be his task to co-operate with and enlist the support of officers of other departments, such as Agriculture, Veterinary and Social Development, who are deeply concerned with this subject.

## VIII.—ENVIRONMENTAL HYGIENE

### (A) URBAN HOUSING AND SANITATION

109. Standards of housing and sanitation in the towns continued to be very far short of ideal. Nonetheless some progress was made during the year. Reports from many urban centres indicated improvement in high density housing and the replacement of old dilapidated buildings by new. These new buildings while satisfying local desires were better planned, better ventilated and enabled a reasonable standard of hygiene to be maintained.

110. Town Councils were very much alive to the housing and town planning problems facing them, and throughout the year tackled these problems vigorously and to the limit of their financial resources, giving excellent support to the work of public health staff.

111. Much attention continued to be paid to the maintenance of hygienic standards in premises concerned with the sale and consumption of food. Many of these premises are not only structurally unsatisfactory but are operated by people of slight education who have no regard to hygienic requirements. Constant vigilance by public health staff was necessary and they did good work in maintaining reasonable standards by persuasion and education, but when necessary, by having recourse to the courts.

112. Considerable improvement to urban water supplies was effected and the situation in the Territory's main towns is now reasonably satisfactory both as regards quantity and quality. In the smaller towns shortages sometimes occurred and standards of quality were not always high. Nonetheless steady improvement in this regard was seen. Very good progress was made with the major scheme for the augmentation of the Dar es Salaam water supply from the Ruvu river some 50 miles from the town. The head works on the river, the distribution reservoir and the main pipe line were nearing completion as the year closed.

113. In many of the towns lack of sewerage was a major problem and will continue to be for some considerable time. In some cases improvement of water supplies increased the drainage problem, a good example of this being Dodoma. For a number of years this town had had a very inadequate water supply and although the absorptive capacity of the land on which it is built was very poor, disposal problems had not been acute. Now that the water supply is adequate drainage disposal is causing very considerable concern, and much thought was devoted to the solution of this problem. Attempts were made by the Geological Survey to measure the depths of the impervious surface layers of the land, but these investigations revealed that it would not be practicable to dispose of drainage by means of deep pits. Nevertheless the drainage problem at this town must be solved as it will only become more acute as urban development continues.

114. It was not possible during the year for any major sewerage schemes to be installed outside of Dar es Salaam, but minor improvements were effected in most towns.

115. Refuse collection and disposal services were maintained in all townships and minor settlements, but the efficiency of such services was not always as great as to be entirely satisfactory. Nevertheless in general it can be said that the townships were maintained reasonably from this point of view although there were notable exceptions to this.

### (B) RURAL SANITATION

116. Although there was a slight increase in the numbers of health staff available in the rural areas it cannot be claimed that the general sanitation of these areas showed marked improvement. However, useful work was done by health staff and slow progress is being made. But until larger numbers of trained personnel are available and it is possible to utilise adequate funds for this work, substantial progress cannot be expected. The digging of



latrines made reasonable progress particularly in areas of more advanced Native Authorities which employed their own sanitary staff to encourage this activity. In the Meru Chiefdom it is now estimated that nearly every house has its own latrine. This satisfactory result was achieved by the excellent work of the Social Development Officer and his staff and the good co-operation of the Meru Tribal Council.

### (C) FOOD HYGIENE

117. While standards of hygiene in the storage, handling and sale of foodstuffs still left much to be desired, it can generally speaking be said that there was some improvement in this regard. It is felt, however, that such improvement is by no means a permanent one and was only achieved by rigorous inspection and can only be maintained by similar means. Township Authorities were alive to the importance of this matter and generally gave public health staff all support in this work.

118. In the Arusha district where the consumption of meat is high, the local authorities passed an order under the Native Authority Ordinance forbidding the sale of meat in unsatisfactory premises. As a result construction of new butcheries to approved design was undertaken. In all, 47 new butchers' shops were licensed by these authorities and a further 10 received temporary licences pending completion of permanent buildings. Again at two minor settlements in the province, namely Unga and Ngare Narok, the local authorities put an end to the previous custom of butchers' slaughtering in front of their shops and required them to slaughter only at the abattoir.

119. In the Moshi district some of the Mangis enforced closure of food premises and pombe clubs for not carrying out the recommendations of the health staff for improvement. It is reported that this again had a salutary effect in raising standards.

120. From other provinces reports were received that slow but steady progress was made in the control of food shops, restaurants, etc., and the problem of the itinerant food vendor in the larger urban centres received considerable attention.

## IX.—INDUSTRIAL HEALTH

### (A) HEALTH OF LABOUR

121. In general it can be said that the health of labour throughout the Territory was reasonably satisfactory although mention has already been made of the tuberculosis problem in the sisal estates particularly in the Tanga Province. In the sisal estates on the Central railway line the problem of tuberculosis did not appear to be so great, and in these labour groups the most important disease problem appears to have been intestinal infections.

122. Medical examinations of recruits for industry were carried out by departmental staff in many parts of the Territory and an important new activity in this regard was the provision of a labour exchange and transit centre by the Labour Department at Tukuyu to provide facilities for the engagement of labour by extra-territorial employing organizations. This necessitated the posting to Tukuyu of one additional medical officer. Although by the end of the year the centre had not come into operation, its potential importance is demonstrated by the fact that by the end of the year 10,531 labourers from Tanganyika had been employed through the agency of the Witwatersrand Native Labour Association.

123. Medical facilities are provided by most industrial concerns for their employees. In many cases substantial and well staffed and equipped hospitals operated, and facilities in this regard are not unsatisfactory. Housing too, on most estates and at most mines was reasonable and industry appears to be alive to the importance of maintaining their labour forces in as good a state of health as may be possible. Although hampered by shortage of staff both Medical and Labour Departments did much to supervise living and working conditions of labour throughout the Territory and to seek where possible their improvement.

### (B) INDUSTRIAL DISEASES

124. Once again industrial injuries continued to loom large as a cause of morbidity among labourers, but that much can be done to reduce working time lost through this cause is demonstrated by the experience of the Geita gold mine during the year. Here admissions

to hospital were cut down drastically by the simple expedient of rapid examination of all men coming off shift and the immediate treatment on the spot of all minor cuts and scratches received.

125. It was once again observed that the general standard of nutrition in recruits was poor especially in the case of those from Ruanda Urundi. Although on this account it was necessary for a number to be repatriated, the majority rapidly showed a great improvement in health under the generally satisfactory conditions of employment.

126. From Chunya in the Southern Highlands Province one case of pneumoconiosis was reported. The patient, an employee at the New Saza gold mine had worked for 17 years underground. Such reports have so far been infrequent in the Territory.

## X.—INTERNATIONAL AND PORT HEALTH

127. Once again no cases of major quarantinable diseases were encountered during the year in vessels using the Territory's ports.

128. None of the East African ports was reported as being infected during the year and no special measures were taken. Nevertheless incidents involving smallpox occurred from time to time and necessitated great vigilance on the part of the Port Health staff.

129. Mombasa continued to act as a barrier to the introduction of infection to the Territory as the majority of vessels from smallpox endemic areas were dealt with at that port before proceeding to Tanganyika ports. One vessel from Bombay landed two cases of variola minor at Mombasa before coming to Dar es Salaam and while in Mombasa all passengers were vaccinated.

130. The Territory's four ports of Dar es Salaam, Tanga, Lindi and Mtwara all deal with shipping from overseas, but it was only at Dar es Salaam that a fully developed Port Health organisation existed. Here a Port Health Officer, a Port Health Inspector and junior health staff were available throughout the year and were responsible not only for the port of Dar es Salaam but also for Dar es Salaam's international airport at Ukonga.

131. During the year there was a considerable increase in the number of ocean-going vessels arriving in Dar es Salaam. In spite of a general world shipping depression nearly 25 per cent more ships entered the port. The number of disembarking passengers showed a 10 per cent increase and the number of transit passengers a 30 per cent increase over the previous year.

132. Passenger traffic on schooners dropped off considerably perhaps because of the better service supplied by the Zanzibar Government steamers operating between Zanzibar and Dar es Salaam.

133. Dhow traffic showed an increase of 116 vessels but the number of passengers landed was only half that of the previous year. No dhows came direct to the Territory from Arabia but 11 originating in Arabian ports touched at the Territory's ports after calling elsewhere on the East African coast during the voyage. Direct contact, however, was maintained with India and 9 dhows came direct to Dar es Salaam from ports in that country. An additional number from India arrived having touched at Kenya ports en route.

134. The following table shows comparative shipping figures for Dar es Salaam from 1955 to 1958:—

	1955		1956		1957		1958
Number of ocean-going ships arrived ...	853	...	826	...	794	...	1,011
Number of passengers disembarked ...	23,671	...	23,384	...	22,518	...	25,300
Number of schooners arrived ...	533	...	739	...	794	...	830
Number of passengers disembarked ...	4,350	...	7,812	...	7,664	...	4,779
Number of dhows arrived ...	464	...	514	...	346	...	462
Number of passengers disembarked ...	411	...	354	...	324	...	365

135. Five cases of infectious disease were landed from vessels in Dar es Salaam and isolated.



136. Anti-rodent measures were maintained throughout the year in the port of Dar es Salaam by the East African Railways and Harbours Administration. A total of 1,866 rats were trapped and 664 were sent for laboratory examination. No evidence of plague infection was observed. Rodent control on dhows and schooners continued under the supervision of the Port Health office and trapping on 257 vessels produced a catch of 437 rats. The number of de-ratting exemption certificates issued was 10 and 3 certificates were, in addition, issued, giving a one month's extension permitting the vessel to proceed to its port of final discharge to enable a full examination to be carried out for an exemption certificate.

137. During the year a considerable quantity of food supplies was examined and condemned, a total of 14 condemnation certificates being issued. All consignments were voluntarily surrendered for destruction and there was no necessity to have recourse to the courts. There was a considerable reduction in the quantity of secondhand clothing passing through the port.

138. At Ukonga Airport, Dar es Salaam, mosquito control was maintained throughout the year and over 6,000 ft. of drains were constructed. Adult anopheline mosquitoes were only found on very few occasions at the catching stations.

139. At Ukonga Airport traffic continued at approximately the same level as during the previous year. The following table provides comparative figures relating to Ukonga Airport during the past four years:—

	1955		1956		1957		1958
Number of aircraft arrived (excluding special aircraft and Government aircraft)	2,040	...	2,303	...	2,329	...	2,309
Number of passengers arrived	26,126	...	27,556	...	31,423	...	29,092

140. Port health control at Tanga port and airport was maintained by the staff of the Health Department of the Tanga Town Council. No incidents of any note occurred during the year.

141. Again at Mtwara and Lindi departmental health staff dealt adequately with shipping the volume of which is not great, and there were again no incidents of note.

142. At Kigoma on Lake Tanganyika departmental staff dealt with lake steamers from Northern Rhodesia and the Belgian Congo. No major infection was encountered.

## XI.—HEALTH OF PRISONERS AND DETAINEES

143. All provinces reported that the health of prisoners was in general satisfactory. There were no major epidemic outbreaks but a minor epidemic of bacillary dysentery affecting both prisoners and warders was reported from Dodoma. While cases of cerebro-spinal meningitis were reported from a number of prisons the most important experience in this regard occurred at Mwanza. Here the generally high incidence of meningitis throughout the province was reflected by the number of cases in the prison and there were five deaths from this cause.

144. The regular inspection of prisoners and prison premises was carried out by Medical Department staff and excellent liaison was maintained between the Department and the Prisons Department. The principle was followed, as far as circumstances permitted, of providing within the prison precincts as much treatment as was possible and only removing to district hospitals cases requiring surgical treatment or special investigation.

145. Throughout the year there were again a number of prison camps maintained in various parts of the country for prisoners engaged on public works. By reason of their remoteness it was not always easy adequately to supervise these camps but a reasonable standard of health was maintained.

146. From 1st July 1958 the Prisons Department's Broadmoor Institution at Dodoma for insane criminals became the responsibility of the Medical Department. As the Isanga Institution, it was, for the remainder of the year, the direct responsibility of the Specialist Psychiatrist at Mirembe Hospital who was also appointed Medical Superintendent of Isanga Institution.

## PART THREE—CURATIVE SERVICES

### XII.—HOSPITALS

#### (A) DAR ES SALAAM HOSPITALS

147. The four Government hospitals in Dar es Salaam namely, the Ocean Road Hospital, Sewa Haji Hospital, Muhimbili Maternity Hospital and the Infectious Diseases Hospital, together with the railway dispensary and the three general out-patient dispensaries continued to be administered as a single unit. In addition, certain parts of the new Princess Margaret Hospital which were made use of during the year were administered by the same organization. A Board of Management appointed by the Director of Medical Services was responsible to the Director for the operation of these institutions. This Board, about the middle of the year, was reconstituted and a Medical Superintendent was appointed in whom responsibility for the day-to-day administration of the hospitals was vested. He was, in fact, the Executive Officer of the Board of Management.

148. The Ocean Road Hospital, originally erected under German administration as the hospital for Europeans, functioned throughout the year with 75 beds and was available to anybody who was prepared to pay the charges levied for accommodation and treatment. There was approximately an eight per cent increase in the number of admissions to this institution during the year but the accommodation available was never under undue pressure and reasonably met the demands placed upon it.

149. An important addition to this hospital was the organization of a unit for the treatment of respiratory failure in anterior poliomyelitis. New and up-to-date equipment was obtained from the United Kingdom including adult and juvenile respirators, suction pumps and resuscitatory apparatus. The unit was available for any cases requiring its special facilities and its use was not restricted to patients who would normally be admitted to the Ocean Road Hospital. During the course of the year it was called into action on four occasions. Its importance, however, should not be measured by the number of times it was used but by its availability in emergency to avoid disaster.

150. Minor improvements were effected to the hospital and plans for the air-conditioning of a ward for the treatment of skin disorders and tropical allergies were advanced at the end of the year. In addition work was also put in hand to air-condition the radiological section of the hospital. The building, however, remains not completely satisfactory when judged by modern standards of hospital construction. Services leave much to be desired and the prevention of noise is a major problem. Nonetheless structurally the institution is sound and should serve the Department for a number of years.

151. The Sewa Haji Hospital continued to be the capital's general hospital functioning in the old out-moded and unsatisfactory buildings to which reference has been made in previous reports. In spite of physical disadvantages the institution gave very good service indeed and there was a very substantial increase in the numbers of in-patients treated. There were few periods during the year when pressure on the beds was not considerable, but it is probable that the department which was under the most continuous pressure was the operating theatre. The rooms in which operative surgery is carried out are very unsatisfactory and, particularly in the hot weather, working conditions are such as to throw a very great strain upon the staff. Early in the year structural alterations and the installation of exhaust fans gave some alleviation of conditions but they still remained unsatisfactory. In spite of these disadvantages it was a remarkable and gratifying fact that the morale of the staff remained very high and it was proud of the very effective work it was doing in adverse conditions.

152. The hospital continued to be served by the out-patient dispensaries at Mnazi Mmoja and Ilala and, from February, by a third similar dispensary at Magomeni. The establishment of these dispensaries has given great relief to the Sewa Haji Hospital itself at which in the past all out-patient treatment was provided. Now only sessions for out-patients referred from the dispensaries are held at the hospital together with a 24-hour casualty service. The performance of the dispensaries continued to be excellent and there was substantial increase not only in the total number of attendances but in the numbers of



new out-patients. In spite of this, sessions were held with the minimum of delay, and it is a tribute to the design of the buildings that as many as 1,130 patients passed through one of them, namely, Mnazi Mmoja, in one day without unduly straining the facilities of the dispensary.

153. At the Princess Margaret Hospital building construction continued. The interns' mess was completed and also blocks of staff flats. Good progress was made with the training school and the health education building, and work was started as the year closed on the theatre and X-ray block. The boiler house and the porter's lodge were nearing completion at the end of the year. The administration block of this new institution was occupied by the Medical Superintendent as office accommodation and storage facilities for the handling of large quantities of stores and equipment which arrived for the new hospital. In addition the dental training centre was in full use throughout the year and was well attended. The mental unit too was fully used and the number of admissions during the year was 101.

154. The physiotherapy department which had been used during the previous year to provide class-room accommodation for the training school ceased to be so used and alternative teaching accommodation was provided in one of the students' hostels.

155. The Muhimbili Maternity Hospital sited as it is in the grounds of the Princess Margaret Hospital, will in due course form a block of that hospital. It continued throughout the year to function with 40 beds and 37 cots and was under severe pressure all the time. The total number of deliveries in the hospital was 1,840 as compared with 1,637 in the previous year. The average number of deliveries per month was 153 compared with 136 in 1957. The maternal mortality rate of 6.7 per 1,000 births was the lowest figure for some years and compared favourably with the figures of 8.8 and 7.7 for the two previous years. The neo-natal death rate however, showed an increase to 35.1 as compared with 27.2.

156. Throughout the year a domiciliary midwifery service was operated from the hospital by a nursing sister assisted by 5 female nursing orderlies. The total number of deliveries was 231 and the total number of ante-natal and post-natal visits by the staff 4,290. The comparable figures for the previous year were 283 and 4,874. The ante-natal and infant welfare clinics which were formerly held at Muhimbili Hospital were transferred to Magomeni dispensary on 18th August. This arrangement was made to relieve the pressure on the out-patient department of the hospital and despite initial difficulties the scheme was working well by the close of the year. It is hoped that it will be possible as a result of this reorganization to provide an operating theatre in the accommodation previously used for out-patients.

157. The Infectious Diseases Hospital, the buildings of which are old and unsuitable, is so sited as to be interfering with important urban development. From every point of view its removal is desirable but this was not possible during the year, and in fact will not be possible until a third ward block is erected at the Princess Margaret Hospital in which to accommodate cases of tuberculosis and other infectious diseases now dealt with in the old hospital. Pressure on the beds in this institution devoted to tuberculosis was heavy and an important tuberculosis out-patient service was operated from the hospital.

#### (B) DISTRICT HOSPITAL SERVICES

##### *Eastern Province*

158. In this province there are hospitals under the charge of medical practitioners at Morogoro, Kilosa, Mahenge, Bagamoyo and Utete. In addition a special leprosy hospital at Chazi is under the charge of a medical officer. On Mafia Island is a small hospital under the immediate charge of a senior medical assistant, and similar units functioned at Kimamba in the Kilosa District and Ruvu in the Kisarawe District.

159. Although all medical units in the province were busy throughout the year there was a drop in the number of in-patients admitted to some hospitals. Generally speaking out-patient attendance figures were also lower than in the previous year and it is possible that this may have been to an extent accounted for by the introduction of limited paying sessions at these hospitals.

160. At Morogoro, which is the provincial hospital, the number of beds available was 184 and although there was a slight drop in the number of in-patients, the hospital was actually exceedingly busy. Surgical work was heavy and a very large number of accident cases, many of them resulting from motor car accidents on the Morogoro/Dar es Salaam road, were dealt with, so much so that it was necessary to devote a whole ward to accident surgery. No major alterations were made to this hospital during the year but minor improvements were effected and there was a complete overhaul and modernization of the hospital drainage system. Covered out-patient waiting accommodation was also provided.

161. Kilosa Hospital with a bed strength of 100 had again a busy year but the accommodation was not under such severe strain as in the previous twelve months. The average bed occupancy was 91·75 as compared with 101·4 in the previous year. During the latter part of the year a small X-ray department was built at this hospital. The apparatus was being installed as the year closed and when brought into operation will add substantially to the hospital's facilities.

162. Mahenge Hospital in the Ulanga District had an average bed occupancy of 38 with a bed strength of 78, a performance comparable with that of the previous year. It is one of the few departmental institutions which has more beds than appear to be required by the surrounding population. Although the district is a populous one the hospital is sited in the hills where the population density is low and it thus effectively serves only a limited part of the district. Considerable improvement was effected at this hospital by the installation during the year of a piped water supply and by the erection of a new staff quarter.

163. There was nearly a 50 per cent increase in the admissions to the Bagamoyo Hospital and there was a substantial increase also in the number of out-patients dealt with. In fact the institution's performance was better than ever in the past and a great deal of routine surgical work was undertaken. There was a gratifying increase also in the amount of maternity work. The hospital is an old one and its buildings are unsatisfactory. Piecemeal improvement is not possible and the rebuilding of the hospital either on its present site or a new site deserves high priority in the next capital planning period.

164. At Utete in the Rufiji District although there was a drop in the number of in-patients treated, there was a very large increase in the number of out-patient attendances. New out-patients were nearly double and there were 10,000 more attendances than in the previous year. This hospital is also an unsatisfactory one and its replacement in due course is clearly necessary. During the whole of the year, however, it was under the charge of a medical officer and as it was possible to augment the staff with trained personnel transferred from other hospitals in the province, satisfactory work was accomplished.

165. The Mafia Hospital of 12 beds remained as in previous years and did good work under the charge of a senior medical assistant. Throughout the year it was visited at three-monthly intervals by a surgeon from Morogoro who on each visit carried out a number of surgical operations.

#### *Central Province*

166. In this province there are hospitals under the charge of medical practitioners at Dodoma, Kongwa, Singida, Kondoa Irangi and Mpwapwa. In addition there are bedded dispensaries under the charge of medical assistants at Manyoni and Itigi.

167. At Dodoma Hospital no major alterations were effected but the hospital coped satisfactorily with the demands placed upon it. There was, in fact, a not inconsiderable reduction in the number of in-patients dealt with and a substantial drop in the number of out-patients. Two important additions to the hospital's facilities were the transfer of the provincial laboratory to Dodoma from Korogwe hospital and also the setting up of a dental clinic under the charge of a dental assistant.

168. The hospital at Singida with 60 beds had a busy and satisfactory year, its performance being very much the same as in the previous year, the first of its existence. A useful addition was the provision of a small portable electric generator to supply lighting for the operating theatre. This was a temporary measure until it would be possible to



install a larger generator and an X-ray set. Although funds were made available for the construction of a power house, and an X-ray set was available for the hospital, by the end of the year it had not been found possible to install the generator.

169. At Kongwa Hospital the year's performance both for in-patients and out-patients fell short of the previous year. However, of the 135 beds available, the 40 specifically allocated for the treatment of tuberculosis cases were fully utilised. The hospital which is of temporary materials with only very few permanent buildings required continuous maintenance to keep them in reasonable condition. In spite of this many of the buildings will in the near future have deteriorated to such an extent as to necessitate their abandonment. It is clear, however, that, with changes taking place in Kongwa town, the medical emphasis in this district will have to be transferred to District Headquarters at Mpwapwa. Plans were accordingly made for the maintenance of a reduced establishment at Kongwa Hospital in the future utilising as far as possible the few permanent buildings on the site.

170. Mpwapwa Hospital continued as an unsatisfactory unit but plans were made for the commencement in the next financial year of the building of a new district hospital on the site of the present institution.

171. Kondo Hospital with 46 beds worked well during the year and the number of in-patients dealt with was maintained at the same level as in the previous year. However, at this institution too, there was a substantial drop in the number of out-patient attendances.

172. Manyoni and Itigi bedded dispensaries continued to do good work with again an increase in the number of in-patients treated. The figures for out-patient attendances at both units reflected the general decline seen elsewhere in the province.

#### *Southern Highlands Province*

173. In this province there are hospitals under the charge of medical practitioners at Mbeya, Iringa, Tukuyu and Njombe. In addition important bedded dispensaries in the charge of senior medical assistants function at Kyela, Malangali and Chunya.

174. At Mbeya Hospital the work of replacing old and unsatisfactory buildings made an important step forward by the completion of a new out-patient administration block. This reconstruction programme which has been carried out over the past few years should be completed in the near future. All that remains is to provide a new services block and to replace two old and unsatisfactory wards. Although this hospital was busy throughout the year with an increased number of in-patients, its facilities were not over-stretched. There was a surprising drop in the number of new out-patient attendances but the total number of out-patients was considerably higher than in the previous year. A total of 603 surgical operations were performed of which 227 were major ones.

175. An important addition to the facilities at Iringa Hospital was provided by the installation of an X-ray machine in February. No structural additions were however effected, although financial provision was made to the extent of £30,000 for the erection of a new block for paying patients. Work on this had not commenced by the close of the year. This hospital was also very busy and its performance was little different from that of the previous year. There was a not inconsiderable increase in the amount of maternity work carried out.

176. Tukuyu Hospital had again a very busy year which further underlined the unsatisfactory nature of the buildings and facilities generally, serving as it does one of the most densely populated districts of the Territory. The accommodation it provides is inadequate and a new hospital is very necessary. Although it had not been anticipated that it would be possible to commence work on a new hospital for several years, it was in fact decided during the year that it was undesirable that this work should be put off any longer and thus in the preparation of estimates for the financial period 1959/60 a sum of money was inserted to enable the new construction to commence towards the end of 1959. It is hoped that the new hospital will be available by the end of 1960

177. The Kibena Hospital at Njombe was again constantly overcrowded throughout the year. The 36 beds at this hospital are quite insufficient to meet the demands of the area. The number of patients admitted during 1958 was 1,699 as opposed to 1,320 in the previous year. The daily average number of patients was about 45 for only 30 general beds and it is thus clearly necessary that additional accommodation be provided at this institution as soon as this may be practicable. At this hospital too, although the number of new out-patient attendances fell short of the previous year, the total number of attendances remained about the same.

178. The Kyela bedded dispensary is sited in the heavily populated plain at the north end of Lake Nyasa and serves a very large population indeed. There are in the dispensary 22 beds and a further 6 maternity beds in the Native Authority clinic sited close to the dispensary. The total number of admissions was 1,210 and out-patients reached the surprisingly high total of 67,747. Minor improvements were carried out at this dispensary and it is intended to develop it into a health centre in the near future.

179. Chunya, which some years ago was a medical officer station, continues in the charge of a medical assistant. The medical institutions at Chunya and Malangali were busy throughout the year, the former in particular as a result of the large scale prospecting for minerals being carried out in the district by the Anglo-American Company.

#### *Southern Province*

180. In this province there are hospitals under the charge of medical practitioners at Lindi, Mtwara, Nachingwea, Newala, Songea, Kilwa and Tunduru. At Liwale is a bedded dispensary in the charge of a medical assistant.

181. Lindi Hospital continued to be the most important medical institution in the province. This new hospital of 103 beds functioned very satisfactorily in spite of shortage of medical personnel towards the end of the year. A Special Grade Medical Officer was responsible for the surgery at the hospital and to him cases requiring cold surgery were referred from a number of the other hospitals in the province.

182. Mtwara Hospital showed a reduction in the numbers of out-patients and in-patients treated, and this was a welcome relief as it had reached its capacity. It is not a very satisfactory institution being constructed of temporary materials and its replacement is an obvious task early in the next capital planning period. The opportunity was taken of the reduced pressure on in-patient accommodation to allocate one of the wards to provide 16 beds for the treatment of cases of tuberculosis.

183. Nachingwea Hospital with a bed strength of 103 is centred in a relatively sparsely populated district and in the past was more than adequate to meet the needs of the people. However, this institution being the headquarters of the Southern Province tuberculosis scheme, has had 50 of its beds allocated for the treatment of cases of this infection and it accepts patients from many centres in the eastern part of the province. The remaining general beds proved sufficient and the hospital is now being more fully utilized than in the past.

184. Songea Hospital with 56 beds functioned very satisfactorily throughout the year staffed by a medical officer, assistant surgeon and a nursing sister. There was a further increase in the amount of work carried out. The average bed occupancy was 59 as compared with 43 in 1957 and 36 in 1956. The maternity ward had its busiest year with 126 deliveries as compared with 37 in 1957. It was found desirable to set aside 18 male beds and 8 female beds for the treatment of tuberculosis and these were constantly full. No major structural alterations were carried out at this hospital, but a piped water supply was installed in all wards making for increased efficiency.

185. Newala Hospital of 60 beds had its first complete year of operation but for financial reasons it was only possible to equip and staff 40 beds. Pressure on the in-patient accommodation was not unduly great for much of the year, but towards the end of the year this increased and the full 60 beds had to be brought into use. The out-patient department was extremely popular and the monthly average attendances were 3,000 with a peak attendance of 5,000 in May.



186. The smaller hospitals at Tunduru and Kilwa Kivinje continued to carry out very useful work in unsatisfactory and inadequate buildings. At both stations it was possible to maintain a medical practitioner throughout the year.

187. The Liwale dispensary with 22 beds provided useful services in a very remote and relatively inaccessible area. The number of admissions was 239, a substantial increase on the previous year and the total out-patient attendances numbered 24,300. The supervision of this unit from Nachingwea presented considerable difficulties because of poor communications.

#### *Northern Province*

188. In this province there are hospitals under the charge of medical practitioners at Arusha, Moshi, Mbulu and Monduli.

At Arusha Hospital no additional accommodation was provided but nonetheless the number of in-patients treated showed a not inconsiderable rise, and it was only possible to deal with the situation by maintaining a rapid turnover of patients. There was, however, some relief in the out-patient department which had been under severe strain during the previous year, as there was a marked drop in the number of out-patient attendances.

189. Moshi Hospital, one of the busiest in the Territory, showed a performance little different from the previous year's and conditions particularly in the out-patient department continued to be most unsatisfactory. However, it was gratifying that a start was made on the construction of a new out-patient department for this hospital to the pattern of the very satisfactory clinics in Dar es Salaam. This facility will be available to the hospital in 1959 when there will no longer be any difficulty in dealing with the very large numbers of out-patients attending.

190. Mbulu Hospital, which operates Oldeani Hospital as an annexe, continued to have as its main problem tuberculosis. It dealt with practically all cases of this disease occurring in this very heavily infected district with the result that on occasions the number of cases in hospital far exceeded the 38 beds allocated specifically for this purpose in the hospital itself and the further 22 beds for tuberculosis cases at Oldeani Hospital. At this hospital as at so many others in the Territory there was a decline in the number of out-patients and in-patients dealt with.

191. The performance of Monduli Hospital in Masailand was much as in the previous year, although a not inconsiderable increase in out-patient attendances was recorded. During the year a ward at this hospital, erected in 1957, was equipped and staffed for the treatment of cases of tuberculosis.

#### *Tanga Province*

192. In this province there are hospitals under the charge of medical practitioners at Tanga, Korogwe, Muheza, Pangani, Lushoto and Same. In addition there are bedded dispensaries in the charge of medical assistants at Handeni and Usangi.

193. There was considerable reorganization of the services at Tanga Hospital during 1958. It had in the past been the practice to maintain an out-patient department at the hospital as well as one at the Ngamiani clinic sited in the high density area of the town. As from the beginning of the year general out-patients were transferred to Ngamiani and only a casualty service was maintained at the hospital itself, although consultant medical and surgical out-patient sessions were conducted there three mornings a week. The Galanos block of 150 beds was formally opened in March and brought into operation in April for the use of female patients, in the terms of the bequest which provided a substantial part of the capital cost of this building. For financial reasons only 100 of the 150 beds could be equipped and staffed and the full utilization even of this accommodation was not effected until the end of June, by which time a new hospital kitchen sited close to the ward had been completed. At this time the lying-in maternity cases which had been dealt with at the Ngamiani clinic were transferred to the new block. A children's ward is available in this building for the admission of children without their mothers. It had been expected that this

innovation would at first be unpopular, but from the day the ward was open it has been full to capacity, and there is no doubt that it is filling a most useful function. The hospital continued to be very busy and there was once again a substantial increase in the number of admissions. There was, however, a marked drop in the total number of out-patient attendances recorded from 184,133 to 115,938. No obvious explanation of this notable change in performance is available.

194. The Infectious Diseases Hospital at Tanga which is accommodated in old German buildings was devoted entirely to the treatment of male cases of tuberculosis. Previously female cases had been dealt with in the general hospital, but during the year arrangements were made for them to be admitted to the hospital at Muheza. It is hoped in the very near future that this less than satisfactory arrangement will be abandoned and that a new infectious diseases block providing some 48 beds will be erected in the compound of the general hospital. Negotiations proceeded throughout the year with the trustees of a deceased citizen of Tanga, a bequest from whom will make this work possible.

195. There were no major changes at Korogwe Hospital during the year. It continued to function with 116 beds and although it appeared to be as busy as ever it, like many other hospitals in the territory, experienced a decline in the number of out-patients and in-patients dealt with. Tuberculosis continued to be one of the hospital's main preoccupations and about a quarter of the beds continued to be devoted to the treatment of this disease.

196. Considerable improvement was effected at Muheza Hospital with the installation of water-borne sanitation and the replacing of the thatch with iron on the roofs of the remaining buildings. Staff quarters, however, remained in a most dilapidated and insanitary condition although steps were taken at the end of the year to rehabilitate them. Once again nearly half of the beds at this hospital were used as a tuberculosis annexe of the Tanga Hospital particularly for female patients, but the working of the hospital was in the latter half of the year seriously affected as the nursing sister resigned and it was unfortunately impossible to obtain a replacement for her. This was particularly unfortunate as this large unit of 180 beds had shown a marked improvement in general nursing standards since the posting of a nursing sister to it. Every effort was made for the remainder of the year to maintain these standards by weekly visits by a senior member of the nursing staff from Tanga. Unsatisfactory though this arrangement was it was the best possible in the circumstances.

197. Fuller use was made of the new district hospital of 30 beds at Same when a medical practitioner was posted to the hospital at the end of May. It was not long before it became apparent that the number of beds available was not adequate to meet the demand and there is no doubt that additions to this hospital will be required in the near future. The hospital has not been very fortunately sited as it is built on unstable soil on quite a considerable slope. The result was that serious trouble arose during the year with the cracking of the walls of the building. Although repairs were effected on several occasions, it would seem that this trouble will recur.

198. A new ward at Lushoto Hospital was brought into use at the end of the year. This structure was provided through the generosity of a local resident and it has improved hospital facilities by replacing an old and unsatisfactory ward. The performance of this hospital was satisfactory but although there was an increase in the number of admissions, in this case again there was a not inconsiderable drop in the number of out-patient attendances.

199. No improvements were effected at Pangani Hospital which continued to function with 26 beds. Work at this unit has increased and there were times when overcrowding was a problem.

#### *Lake Province*

200. In this province there are hospitals in the charge of medical practitioners at Mwanza Bukoba, Musoma, Shinyanga, Ukerewe, Geita, Biharamulo, Maswa and Tarime. There are also bedded dispensaries in the charge of medical assistants at Ngudu and Ngara.



201. Mwanza Hospital with 220 beds is the largest medical institution in the province. It worked at very high pressure during the year and the increasing demands on it were at times impressive. The number of admissions showed a further increase and, in fact, the number of African male in-patients rose by nearly 30 per cent. The average daily bed state however did not rise because of the rapid turnover of patients which was resorted to. At this hospital, too, although there was an increase in the number of new out-patient attendances there was nearly a 25 per cent drop in the total number of out-patient attendances. There were no additions made to the bed accommodation at the hospital and it was only possible to effect some minor improvements in the out-patient department. The institution remains less than satisfactory and its replacement as soon as practicable is very necessary.

202. Bukoba Hospital recorded a reduction both of admissions and in the total number of out-patient attendances. The latter was attributed in part to the absence of influenza which had greatly increased the figures for the previous year and partly to the institution of paying out-patient sessions in the early morning which apparently discouraged numbers of patients who regarded the visit to the hospital as a social occasion on the way to market. Although free out-patient sessions continued to be held later in the day, it was noted that patients reporting with trivial complaints were very much fewer. It was also considered that a contributory factor was the steadily improving rural dispensary services. A remarkable number of surgical and obstetric emergencies were dealt with and some very interesting and rare conditions were recorded. Deliveries in hospital were less but the number of caesarean sections increased from 22 to 31 as more abnormal midwifery was encountered. Many of these abnormalities were attributed to the unskilled use before admission of oxytocic drugs. The hospital was wired throughout to receive the new town electricity supply, but this proved unsatisfactory after only a few days and for the rest of the year was not usable. The only addition to the hospital buildings was the provision of a new nurses staff quarter.

203. Musoma Hospital experienced much the same volume of work as in the previous year, but there was some increase in the amount of emergency surgery and in the demand for treatment of tuberculosis. Minor but important repairs were effected to buildings and some improvement was achieved in the hospital drainage although this still remains far from satisfactory.

204. At Shinyanga Hospital both in-patient and out-patient figures showed a fall but the remarkable popularity of the maternity ward was maintained and for some months of the year the number of confinements was over 100 per month. Water-borne sanitation to the wards was provided, and after some initial trouble functioned well and was a great improvement. A new reserve water tank was installed and this too has made the working of the hospital much easier. Minor improvements were effected to kitchen and laboratory and to the drainage system.

205. Ukerewe Hospital proved itself a very satisfactory unit and was extremely busy throughout the year. The number of admissions was 20 per cent higher than in the previous year and there was a greatly increased amount of surgery performed. In response to local demand two of the rooms in the isolation block were made available for paying patients particularly those requiring surgery. This hospital continued to encounter considerable numbers of cases of severe infestation with bilharzia with intestinal granulomata and there was confirmation that this disease is one of the most important problems on the island.

206. The new hospital at Geita with 60 beds was opened early in January although for financial reasons the bed state was officially restricted to 40. However, such was the demand for admissions that this could scarcely at any time be adhered to and, as the hospital had merely been staffed to 40 beds, staffing difficulties were considerable. At first the hospital was called upon to deal with a considerable number of confinements but later in the year there was some relief in this regard with the opening nearby of a Native Authority maternity ward.

207. As the new 60-bed hospital at Maswa which was commenced in 1956 was still not completed by the end of the year, Maswa had perforce to rely on the existing old unsatisfactory 30-bed hospital. Nevertheless the old hospital functioned reasonably and

there was a small increase in the number of admissions together with a 20 per cent increase in out-patient attendances. It is remarkable that there were 490 confinements in view of the poor quality of this institution and the lack of trained staff. There will be no regrets at all when, early in 1959, this hospital is abandoned and the new one occupied.

208. Biharamulo Hospital functioned very much at the same level as in the previous year. There was a slight increase in admissions and a slight fall in the number of out-patient attendances. A considerable amount of surgery was carried out and once again there was an unusual number of lorry and bus accident cases to be dealt with. No structural improvements were effected to this institution during the year.

209. The small hospital of 10 beds at Tarime is a very unsatisfactory institution. For some months at the beginning of the year it was without a doctor but a medical officer was posted to it when the staff position permitted. The wards could scarcely cope with the demands placed upon them and, as there were no facilities for surgery, the medical officer worked under very considerable difficulties. However, financial provision was made to enable the reconstruction of this hospital to be commenced and work on the construction of the first ward of the new hospital was starting as the year closed.

#### *Western Province*

210. In this province there are hospitals under the charge of medical practitioners at Tabora, Kigoma, Nzega, Kahama, Kibondo and Sumbawanga. At Mpanda there is a bedded dispensary in the charge of a medical assistant.

211. Tabora Hospital continued to be the largest and busiest Government medical institution in the province. No addition was made to the bed strength which continued to be 216. Important improvements were effected by the completion of the new services block. This enabled the very unsatisfactory existing kitchen and laundry to be abandoned. Accommodation was also provided in the new block for a dental clinic which was necessitated by the posting of a dental assistant to the station. As far as in-patients were concerned the hospital's performance was very much as in the previous year and the total number of out-patient attendances also remained about the same. There was, however, a very large drop in the number of new out-patients seeking treatment.

212. There were no alterations of consequence at Kigoma Hospital and although the siting of the buildings does not lend itself to efficient and easy working the hospital functioned satisfactorily and met the demands placed upon it.

213. There were no structural additions to Nzega Hospital which is now considered to be sufficient to meet the requirements of the district for a number of years. Although it was kept reasonably busy it was under no undue pressure, and in fact there was a reduction in the number of admissions. Here again although the total out-patient attendances were considerably higher than in the previous year there was a notable drop in the number of new patients attending for treatment.

214. Considerable improvement was effected at Kahama Hospital by the completion of two new 13-bedded wards and the utilization of a building, sited close to the hospital, as a maternity unit to replace the old maternity unit which was situated inconveniently far away from the main hospital. Thus good progress has been made in the reconstruction of this district hospital to the standard design and it is hoped that this work will be completed within the next two years.

215. The new 60-bedded hospital at Kibondo to replace the old unsatisfactory institution was brought into use in May. Here again for financial reasons it was only possible to staff and use 40 beds, but these proved sufficient. It might have been expected that the opening of the new hospital would have led to increased numbers of patients but, in fact, admissions were fewer than in the previous year and out-patient attendances dropped considerably.

216. At Sumbawanga work on the new hospital which continued with interruptions throughout the year, was still uncompleted by the end of December, building having been held up because of the shortage of water. Nevertheless those portions of the new hospital which have been completed were fully utilized and a reasonable hospital service was provided.



There was a very large increase in the number of admissions, but here again total out-patient attendances showed a decline although the number of new attendances was higher than in the previous year.

217. At Mpanda work continued throughout the year on the construction of a building to be used as a bedded dispensary and to replace the existing dispensary situated nine miles away from the new Boma. Towards the end of the year the old dispensary was abandoned and the new one at Mpanda itself brought into use. This dispensary is functioning in what will be the administration block of the hospital which it is expected will be developed at this station in the future.

### (C) SPECIAL HOSPITALS

#### *Tuberculosis Hospital, Kibongoto*

218. This continued to be the only hospital in the Territory exclusively devoted to the treatment of tuberculosis and, with an official bed state of 294, it had an average bed occupancy for the year of 296.7. Reference was made in last year's report to the number of lean-to shelters which had provided temporary accommodation at the hospital and of the steps that were taken to eliminate this most unsatisfactory feature. All but one of these were demolished and during the year under review a quarter of the last row was dispensed with and there now remains only one, a 10-bed hut which was used in effect as an admission ward to cope with persons arriving unannounced at the hospital. During the year staff quarters received considerable attention and existing quarters were extensively overhauled. No less than 17 houses were re-roofed with corrugated iron to replace unsatisfactory thatch. In addition one new 3-roomed staff quarter was completed. An important development was the formation of the Kibongoto Welfare Committee the efforts of which were directed to rehabilitating temporarily incapacitated tuberculosis patients.

This Committee which comprised anumber of well-known local people, including four local farmers, directed attention to agricultural development of portions of the hospital grounds to produce cash crops. Four and a half acres of coffee were planted, seed beans were sown and a coffee nursery established. The profits at the end of the first year which were available to the Welfare Committee amounted to £130. As part of their rehabilitation certain patients assisted in this work and others were attached to various departments of the hospital to learn trades, but the Medical Officer i/c expressed the view that the patients preferred lying in bed to learning improved agricultural methods.

219. Although the daily average number of in-patients was considerably lower than in the previous year as a result of the demolition of temporary accommodation, the number of cases admitted, namely 1,561, compared very favourably with the 1,032 admitted in 1957. This increase was possible because there was a decrease in the number of chronic antibiotic-resistant cases and thus more beds were available for new acute cases. Again more patients were transferred to other hospitals in Tanga and Northern Province where out-patient treatment schemes were functioning.

220. The number of deaths in hospital showed a further substantial fall, there being 27 as compared with 39 in 1957, then the lowest number of deaths on record. The total number of patients treated in hospital during the year was 1,822 as compared with 1,375 in the previous year. The vast majority of these cases were of pulmonary tuberculosis but 131 cases of cervical adenitis and 53 cases of bone and joint tuberculosis were treated.

221. With regard to the pulmonary disease the type remained more or less the same as in previous years. Cases admitted from Tanga and the coast belt and a few of the cases from Moshi town showed a tendency to be less acute than the average case. This fact had been noted before and would appear to indicate the beginnings of racial resistance in areas where the African has been in contact with the disease for a relatively longer period of time. Treatment in the main was by chemotherapy and the decline in the importance of surgery and collapse therapy continued. Operative measures were employed only on certain chronic resistant cases which had failed to react to long term chemotherapy, and this was the case too with regard to collapse therapy. Under chemotherapy a marked reaction of the disease to treatment was again seen in African patients. In particular there was very early

conversion of the sputum to negative. During the year it became apparent that the incidence of primary bacterial antibiotic resistance was decreasing in patients admitted from the Kilimanjaro and North Pare areas. This was considered to be due to the fact that the number of chronic resistant cases circulating in these areas is now very small and also that fewer patients are being rendered resistant. It was claimed that the number of patients who were rendered resistant during the year was negligible and in those that were the cause had generally been failure of the patients to take their medicines as directed. Exceptionally, primary resistance to antibiotics was encountered. It was the conviction of the hospital staff that any new African case admitted to hospital would certainly be cured provided he arrived with sufficient lung tissue left to ensure respiration. It was stated that the only failures of chemotherapy occurred in persons who died from complications in the first few weeks of treatment before the drugs could exert their full effect.

222. Kibongoto Hospital continued to participate with other institutions in the Territory and in the adjoining territories in the therapeutic trials organized by the Medical Research Council. A new series of trials was commenced in October involving the use of semi-carbazone and a new drug SUI 906 in combination with isoniazid, and there were early indications that the latter combination has a powerful effect on the bacillus.

223. Controlled home treatment based upon Kibongoto continued to be developed and, by the end of the year 895 patients were being dealt with under this scheme. Results have been reported to be very satisfactory and it was necessary to readmit to hospital only five cases which had become sputum positive. The staff of the hospital continued to promote the health education of the public in matters relating to tuberculosis, and they organised exhibitions and demonstrations and gave lectures and film shows to community leaders in the Kilimanjaro, Meru and Arusha areas. A poster campaign against the universally prevalent habit of spitting was conducted throughout the year, but perhaps the most important preventive measure conducted by the hospital staff was a BCG vaccination campaign which was completed towards the end of the year. No less than 32,365 Chagga schoolchildren were BCG vaccinated and almost 2,000 schoolchildren in the North Pare District in addition. As has been mentioned elsewhere in this report tuberculin testing of the schoolchildren prior to BCG vaccination revealed a very wide variation between individual schools in the percentages of positive reactors. The highest percentage recorded was 64 per cent and the lowest 10 per cent.

224. The Medical Officer i/c Kibongoto Hospital functioned, as far as his hospital duties permitted, as provincial tuberculosis officer for the Northern and Tanga Provinces. This function he was more easily able to exercise with the posting to the hospital in the latter part of the year of a second medical officer. Visits were paid to all districts in these two provinces and local medical staff given every encouragement in dealing with their own tuberculosis problem. This has proved to be very valuable and to have stimulated very successful anti-tuberculosis work in these two provinces.

#### *Mirembe Hospital, Dodoma*

225. This remains the only institution in the Territory specifically designed and built for the care and treatment of the mentally sick. No additional ward accommodation was provided since, as was mentioned in the previous report, the construction of new wards in previous years had caused a stage to be reached when kitchen and dining room facilities were insufficient and the hospital drainage system could no longer cope with the increased population. Two new kitchens were built but, as, by the end of the year the electric cookers had not arrived in the Territory, it was not possible to bring them into use. New ablutions and lavatories were also provided on both the male and the female sides of the hospital but these again could not be used as water connections were not made owing to the continuing inadequacy of the drainage system.

226. The institution's sewage disposal system was very unsatisfactory and a serious situation arose in August when blockages became so frequent and serious as to cause overflow of sewage into the female enclosure. Septic tanks serving some of the wards of both sides



of the hospital also proved inefficient even although they were regularly emptied by the township authorities. The Public Works Department proceeded to the drawing up of a comprehensive drainage scheme for the hospital and in the meantime provided labourers to carry out daily rodding of certain of the drains. This measure was effective in so far as it kept the sewage underground and abated the very dangerous nuisance which periodically occurred in the female enclosure. At the end of the year plans were well advanced to provide for the installation of a satisfactory drainage system in 1959.

227. The number of patients remaining in hospital at the end of 1958 rose to the high figure of 607 as compared with 582 at the end of 1957 and 591 at the end of 1956. The decrease in 1957 was due to the discharge of 100 chronic patients to the care of their relatives during that year, but it was not possible to do this again during 1958. Discharges from the institution were also the highest on record being 330 as compared with 303 in 1957. To achieve this discharge rate and maintain the institution population within bounds, it was necessary for some patients who had not fully recovered to be discharged to the care of relatives to make room for the more acute cases coming from all parts of the Territory. The number of admissions was also substantially higher than ever before, 463 patients being admitted as compared with 361 in 1957. Of the admissions 345 were under certificate, 91 under observation, 26 as voluntary patients and one as a temporary patient. The number of patients under certificate was very much higher than in the previous year and there was also a rise in the numbers of patients admitted under observation. There was, however, a fall in the number of voluntary patients. During the year one male patient was transferred to Isanga Institution and 7 were referred to Lutindi Hospital. There were 8 escapes, all of them men. The number of deaths, namely 92, was very much higher than in previous years. This figure is 15 per cent of the total number of patients in the hospital, and the increase was largely attributable to an outbreak of bacillary dysentery. There were 5 deaths from senile dementia and 8 patients arrived moribund. The outbreak of dysentery was investigated by a pathologist from Dar es Salaam, but the causative organism was not isolated. The investigation revealed a high salmonella carrier rate among both patients and food handlers but there was only one death during the year in which a diagnosis of typhoid fever was definitely established. Apart from the outbreak of bacillary dysentery the general physical health of the patients was reasonably good.

228. As in previous years electro-convulsive treatment remained the most important form of therapy used. During the year a total of 348 patients were treated by this method and results were remarkably good. Recoveries numbered 160. Some improvement was noted in 73 patients, and in 103 patients no change was discernible. Largactil remained the drug of choice for the disturbed African and was often combined with ECT. No insulin therapy was carried out.

229. A controlled trial of meprobamate, one of the new tranquilisers, was carried out. Twenty disturbed female African patients were selected for the trial, fourteen from Mirembe Hospital and six from Isanga Institution. The patients chosen, the most difficult to control in hospital, were all chronic cases who had had an average length of stay in hospital of four years. Eight of the patients were schizophrenics, six were chronic affective states, three were epileptics, two were mentally deficient and there was one case of senile dementia. Encouraging improvement was observed in eight patients, four were worse and the remainder unchanged. When the drug was discontinued all those that had shown improvement relapsed.

230. Occupational therapy in the main was provided by agricultural activities and a considerable number of patients were given employment in the hospital farm. A certain amount of raffia work and basket making was undertaken but this activity requires to be developed further.

231. Mirembe Hospital Welfare Committee which was formed towards the end of 1957 functioned satisfactorily throughout the year and regular meetings were held. This Committee disburses profits from the hospital farm and monies from other sources for the welfare of the patients.

232. There were considerable staff difficulties at the institution and discontent about rates of pay led to a strike of the hospital orderlies in March. The stoppage lasted only two days but was a cause of great concern and led to the adjustment of salaries of the nursing orderlies. Following this there were no further troubles on this account. For the greater part of the year medical staff was below strength as also was senior nursing staff but by the end of the year improvement in this regard had taken place, a medical officer having been appointed to assist the medical superintendent and a matron too having been appointed.

#### *Isanga Institution, Dodoma*

233. This institution for insane criminals, formerly known as Broadmoor, was taken over by the Medical Department from the Prisons Department from 1st July. The Specialist Psychiatrist who is also Medical Superintendent of Mirembe Hospital was appointed in addition Medical Superintendent of Isanga Institution.

234. At the end of the year there were 196 patients, an increase of 9 on the previous year. The accommodation at the institution, the construction of which resembles a prison rather than a hospital, is estimated to be sufficient for 214 patients, and as the population is increasing at the rate of approximately 10 each year, it will be necessary in the very near future to provide additional buildings.

235. During the year there were 51 discharges. Of these 27 were transferred to Mirembe Hospital through the magistrate's court after completing their sentence, 16 were discharged to prisons to complete their sentences, 4 were discharged conditionally on the advice of the Advisory Board for Special Category Lunatics, and 4 left the institution after *nolle prosequi* had been issued by the Attorney-General.

236. The number of admissions was 63 which was 3 more than in 1957. There were no escapes during the year but 5 patients died. The general health of the inmates was very good, and there were no outbreaks of infections or fly-borne diseases. As in Mirembe Hospital the forms of treatment favoured were ECT and the administration of largactil. In view of the good results obtained in the previous year in the treatment of disturbed epileptic patients with primidone, a number of patients were kept under treatment with this drug in spite of its high cost. The results of treatment in Isanga Institution followed the pattern observed in Mirembe Hospital.

237. Occupational therapy was vigorously pursued. Many patients were employed on mat-making, basket-making and other forms of raffia work. Gardening activities, building and carpentry also played their part in the occupational therapy at the institution. The statutory Board of Visitors met at the institution in June when 186 patients were interviewed and reported upon. The Advisory Board on Special Category Lunatics met twice at the institution during the year. At the January meeting 6 patients were interviewed and 3 were considered for release after enquiries had been made about home conditions. At the second meeting of the Board in August, 4 patients were interviewed and 1 was recommended for conditional release.

238. In spite of change of administrative responsibility for the institution, discipline was well maintained and it functioned very satisfactorily.

#### *Leprosaria*

239. There were still 19 leprosaria functioning in the Territory during the year, five administered by the Medical Department and the remainder either by missions or Native Authorities. The non-government institutions continued to receive financial assistance from Central Government by way of maintenance grants and also grants for specific drugs.

240. Although without a resident medical officer i/c for the greater part of the year, the Government leprosarium at Makete worked satisfactorily. The resident staff consisted, after March, of a nursing sister and a lay superintendent, medical responsibility being placed upon a medical officer stationed at Tukuyu Hospital. The leprosarium has an excellent 36 bed hospital which was erected with funds provided by the British Red Cross Society



and its Tanganyika Branch. During the year this institution was entitled The Lady Twining Red Cross Hospital to commemorate the part played in its establishment by the founder of the Tanganyika Branch of the British Red Cross Society.

241. As the year closed there were approximately 530 patients resident, a figure somewhat lower than the corresponding one for the previous year. Admissions numbered 222 but a substantial number of persons absconded from the institution during the year.

242. The total number of persons under treatment at the leprosarium and its satellite clinics throughout the Rungwe District numbered, 1,680, a satisfactory increase on the previous year's figure of 1,300. The number of district clinics was increased by 6 to a total of 12 and 5 of these are under the charge of full-time tribal dressers.

243. At Chazi, the second most important of the Government leprosy institutions, the development of which had been somewhat retarded in the past, there was considerably increased activity when, in March, the medical officer from Makete was posted there. His arrival coincided with the completion of the new hospital to serve the leprosarium. This consists of 26 beds and provides reasonable facilities for operative surgery as well as for the treatment of outpatients. The work of construction had been supervised by a BELRA worker who continued to work at the institution after the completion of the building operations, as manager of the leprosarium farm. The senior staff of Chazi leprosarium at the end of the year consisted of a medical officer, a lay BELRA worker and a temporary nursing sister, and the work of the institution was developing in a very satisfactory manner.

244. Following a review of all in-patients, a considerable number of those who were considered fit were discharged, but an increase in admissions occurred and the number of patients in residence at the close of the year was in the region of 350. The policy of making out-patient treatment more accessible throughout the eastern province was pursued, and 5 new clinics were opened during the year bringing the total number of clinics in the province to 31. Supervision of these clinics was exercised by district medical officers as well as by the medical officer in charge of the leprosarium.

245. In the Central Province the new leprosarium being built at Iambi by the Lutheran Mission made reasonable progress and the prospects are that it will be possible in the not too distant future to transfer patients there from the burnt out and unsatisfactory institution at Mkalama. Some progress, too, was made towards finding an alternative site for the other unsatisfactory leprosarium in the province, that at Makutapora operated by the Church Missionary Society.

246. Other leprosaria throughout the Territory functioned as in the past although progress was made towards implementing the policy of utilising such institutions only for infectious cases and others needing special care. The total number of in-patients resident in leprosaria at the end of the year was 5,133 and it is estimated that the number of persons covered by the various out-patient treatment schemes throughout the Territory was approximately 27,000.

### XIII.—RURAL MEDICAL SERVICES

247. Dispensary services in the rural areas are the responsibility of local Native Authorities who have the task of financing, managing and developing them. There remain, however, a few relatively large bedded dispensaries which are the direct responsibility of Government. Where these are sited at the headquarters of districts not as yet provided with a district hospital, it is planned that in due course they will be converted into such hospitals. Elsewhere the few remaining units of this kind are gradually being handed over to the Native Authorities. The supervising of the work of all these units remains the responsibility of the Government staff and district medical officers provide as much supervision as their other duties permit. Visits to dispensaries have on the whole been more frequent and it is reported that the improved supervision is bringing about a further improvement in the standards of treatment available. This was particularly remarked upon with regard to the Bukoba District.

248. There was a further increase in the total number of dispensaries in the rural areas, and at the end of the year the number established was 643 as compared with 586 in the previous year. The demand for new dispensaries is continuous and although district medical staff sympathise fully with the desire of the people to have dispensary facilities more readily available to them, they are reluctant to see the numbers of dispensaries increasing to such an extent as to be beyond their capacity to provide adequate supervision. Experience in the past has shown that when dispensaries are inadequately supervised the standards of treatment tend to fall.

249. Dispensaries vary in scope and magnitude from simple units providing dressings and a very limited range of medicaments, to more elaborate structures having in-patient facilities of a simple nature. They are staffed by two types of personnel and are graded "A" and "B" accordingly. Grade A dispensaries are under the charge of rural medical aids who have had two years' training at the Government training centre at Mwanza and at Government district hospitals. The Grade B dispensaries are staffed by tribal dressers, men of lower educational standard who have had merely a short period of practical training at the district hospital before being posted to the dispensary. The scale of equipment of each dispensary is fixed to accord with the training and knowledge of the man in charge. Although it has been the aim for a number of years to replace tribal dressers and thus upgrade "B" dispensaries to "A" dispensaries, great progress has not been made as the output of trained rural medical aids has not been able to keep pace with the opening of new dispensaries. Although some two years ago steps were taken to double the output of rural medical aids, this has hardly affected the position and thus the part played by grade "B" dispensaries today is as great as ever. Nonetheless many of the Native authorities have accepted the principle of establishing health centres in their areas as envisaged in the Five-Year Development Plan and a number of districts are gradually adding to existing dispensaries with the aim of converting them to health centres as has already been done at Kishapu in the Shinyanga District, at Handali in the Dodoma District and at Ikungi in the Singida District. Other districts in a stronger financial position aim to replace old dispensaries with new, specially designed health centres of the type provided at Misungwi in the Mwanza District.

250. During the year fully staffed and equipped rural health centres were established in ten districts, namely, Dodoma, Singida, Songea, Nzega, Shinyanga, Mwanza, Moshi, Arusha, Masasi and Rungwe. These units were staffed by medical assistants, health nurses, assistant health inspectors and subordinate staff. They have in the short time of their existence proved to be extremely popular and have considerably improved the standards of curative and preventive services in their particular areas, not only directly but indirectly by reason of the supervision which they exercise on the ordinary dispensaries which are satellite to them.

251. In many parts of the territory dispensaries operated by missionary organizations continued to function. Many of these are elaborate institutions under the charge of expatriate nursing personnel and they played an important part in the provision of curative services in rural areas.

#### XIV.—SPECIALIST SERVICES

##### (A) *Medical*

252. There are two medical specialists both of whom are stationed in Dar es Salaam. Although one of them was on leave during the year, it was for a short period only, and the minimum disruption in their work occurred.

253. An important function of the medical specialists was touring in the Territory advising medical officers in the districts. The Senior Medical Specialist visited Northern, Central, Eastern and Southern Provinces in January accompanying a visiting tuberculosis consultant. The Senior Specialist also visited the Western Province and the Medical Specialist the Northern, Tanga and Southern Highlands Provinces. There was thus during the year a fairly reasonable coverage of the Territory with the only province unvisited being the Lake Province.



254. In their report the medical specialists commented on the epidemic of infectious hepatitis which occurred particularly in Dar es Salaam with a primary and secondary wave. They noted as an unpleasant feature of this disease the prolonged depression lasting for months rather than weeks.

255. An important task of the medical specialists, working with their surgical colleagues was the training of interns, and they devoted considerable time to this important duty.

256. Among clinical activities, a noteworthy joint investigation with the pathologists on the nature of and the best treatment for anaemia was pursued. While the investigation still continues it emerged that the main cause of anaemia as encountered in the Sewa Haji Hospital is iron deficiency often associated with hookworm infestation. This is a serious condition with not only a high morbidity but also a surprisingly high mortality in severe cases. It emerged that in such severe cases blood transfusion was as urgently required as in acute surgical emergencies. In the less severe cases iron by mouth produced results as quickly or even more quickly than parenteral iron.

257. The Senior Medical Specialist continued to be responsible for the Infectious Diseases Hospital and in particular for the tuberculosis work carried out there. The Medical Specialist on the other hand, was responsible for the small number of leprosy patients in the Infectious Diseases Hospital and for the leprosy out-patient clinic conducted at that institution.

### (B) *Surgical*

258. As in the past the department had available two surgical specialists both stationed in Dar es Salaam. Each specialist was responsible for a surgical team which had in its charge approximately 80 surgical beds with a weekly turnover of about 30 patients in each team. The number of operations carried out in the main theatres was 2,381 and 1,082 in the out-patient theatre. As has been usual in the past the surgery of hernias and hydroceles loomed large and there was a very large number of orthopaedic operations, including fractures. The weekly poliomyelitis clinic continued to be held throughout the year, the great majority of those attending being children with a moderately severe degree of permanent crippling. Of the 180 patients on the register at the Sewa Haji Hospital, half have gone up-country and been lost sight of, but the remainder attended regularly for review. Through the British Red Cross Society and the local authorities 57 surgical boots or calipers were provided for such patients. In addition the Red Cross carpenter fitted 27 patients with simple artificial limbs.

259. A member of one of the surgical units conducted ear, nose and throat clinics on three mornings each week. An average of 153 patients were seen each month of whom 98 were new cases. The total number of new cases seen was 1,175, almost double the figure for the previous year.

260. Apart from an eventful safari by road and canoe to Utete by one of the surgical specialists to attend an abdominal stab wound and another emergency call to Morogoro, no safaris were undertaken by these officers.

### (C) *Ophthalmic*

261. For the second year there was only one Ophthalmic Specialist available and it was thus possible to provide only very limited ophthalmic services outside Dar es Salaam. The Ophthalmic Specialist, did, however, visit Morogoro and Tanga every two months and he also visited Iringa and Mbeya. There was a steady increase in the amount of ophthalmic work done and once again there was a substantial amount of operative surgery performed.

The total number of ophthalmic operations was 117 as compared with 185 in the previous year. Cataract extraction was once again very popular and the ophthalmic beds at the Sewa Haji Hospital were in constant use.

#### (D) *Dental*

262. The dental services throughout the Territory were administered by the Senior Dental Surgeon whose headquarters are in Dar es Salaam. In the early part of the year, as has already been mentioned, shortage of dental surgeons caused serious concern and at one stage there were only three effective dental officers out of an establishment of seven. Towards the end of the year the position had improved and all but one of the established vacancies had been filled.

263. Dental safaris were carried out by officers from Dar es Salaam who visited the Southern Province and the Central Province and arrangements were made for treatment to be given to Government personnel during a visit to the Lake Province by a private dentist.

264. At the close of the year, apart from Dar es Salaam, the only station with a dental officer was Tanga but arrangements were in train for an officer to be posted to Mbeya at the beginning of 1959.

265. A very important event was the posting to up-country stations of the first trained dental assistants. Six of these men were available and five were posted up-country to Tanga, Dodoma, Lindi, Tabora and Moshi respectively, while the sixth was retained in Dar es Salaam. Reference has already been made to the useful work that they have done not only for the general population but also by initiating school dental inspections.

266. The Dental Unit at the Princess Margaret Hospital continued to be very popular and provided adequate facilities for the continued training of dental assistants.

#### (E) *Mental*

267. The Specialist Psychiatrist is as has already been mentioned Medical Superintendent of Mirembe Mental Hospital and of Isanga Institution. He was on leave for some five months during the year and during this time it was necessary on one occasion to seek the assistance of the Specialist Psychiatrist, Kenya, who visited Dar es Salaam in June.

268. Periodic out-patient sessions were held in Dar es Salaam and Tanga by the Specialist Psychiatrist from Dodoma and once again he supervised the institution for chronic cases operated by the Lutheran Mission at Lutindi.

#### (F) *Anaesthetics*

269. Anaesthetic services are the responsibility of the Specialist Anaesthetist who is stationed in Dar es Salaam. Once again several new drugs were obtained for trial, the latest being fluothane a new non-explosive, non-inflammable halogen anaesthetic which on preliminary study appeared to be of considerable value.

#### (G) *Tuberculosis*

270. The post of Tuberculosis Specialist was not filled and the Senior Medical Specialist continued to act as the adviser to Headquarters on this subject.

#### (H) *Sleeping Sickness*

271. The Sleeping Sickness Specialist as in previous years was stationed at Tabora, headquarters of the Western Province in which is the highest incidence of this disease. As anti-sleeping sickness and anti-tsetse activities are carried out by the Provincial Administration and the Tsetse Survey and Reclamation Department, the function of the Sleeping Sickness Specialist was purely advisory. He devoted a great deal of his time to travelling in the affected areas of the Territory advising officers of the Provincial Administration and the Medical Department on sleeping sickness problems and keeping them alive to the importance of these problems. He continued to carry out in the beds allocated to him at Tabora Hospital, therapeutic trials of new preparations for use particularly in late cases of the disease.

#### (I) *Child Health*

272. Once again it must regrettably be reported that it was not, for financial reasons, possible to fill this post during the year.



## PART FOUR—ANCILLARY AND RELATED SERVICES

### XV.—LABORATORY SERVICES

273. The laboratory services remained in the charge of the Senior Pathologist who was stationed in Dar es Salaam. The establishment available to him was, as in the previous year, 3 pathologists, 3 laboratory technologists, 6 senior laboratory assistants and 44 laboratory assistants. The whole of this staff was not, however, available throughout the year and, in fact, for a period the staff of pathologists was seriously low. The private practitioner who, as mentioned in the previous report, had been engaged on a part-time basis to undertake forensic pathology duties, resigned about the middle of the year. As the Senior Pathologist himself was on overseas leave from May to October and another pathologist proceeded on study leave in September, it was with difficulty that services were maintained. Again there were 5 vacancies in the cadre of laboratory assistants and with the increased volume of work which fell on the laboratory services during the year the shortage of personnel was felt.

274. The organization of the laboratory services remained as in previous years with the Headquarters Laboratory in Dar es Salaam, 8 laboratories at provincial headquarters and smaller laboratories at all district hospitals. The Headquarters' Laboratory provided a fairly complete clinical pathology and technical service for Dar es Salaam together with reference facilities for up-country hospitals and laboratories. With the increase of work and also the necessity to develop clinical virology in the laboratory, bench and office space was hardly sufficient. Additional accommodation is obviously required and this it is hoped to provide by the erection of a new building for offices, thus freeing additional laboratory space within the main building.

275. The laboratories at provincial headquarters were staffed by laboratory assistants and provided facilities for routine microscopy, haematology, serology and limited biochemistry. The two largest of these provincial laboratories, those at Tanga and Moshi, are designated as "A" laboratories as their facilities and accommodation are sufficient to permit more extensive procedures being carried out. The remaining provincial laboratories were classified as "B" laboratories. The laboratories in the district hospitals, designated "C" laboratories, are small clinical side rooms. They are not administered directly by the Senior Pathologist as are "A" and "B" laboratories but are the responsibility of the medical officer in charge of the hospital.

276. At the Headquarters Laboratory lectures and lecture demonstrations were given to laboratory and medical assistant students. The curriculum for laboratory assistant students was based on the syllabus for the intermediate examination of the Institute of Medical Laboratory Technology suitably modified to meet local conditions. Technical training of medical assistant students in simple clinical side room procedures was carried out by the laboratory assistants at the Sewa Haji Hospital laboratory. During the year a number of laboratory assistants and junior laboratory assistants from up-country stations attended refresher courses at the Dar es Salaam laboratory.

277. In Dar es Salaam there was considerable expansion of the bacteriology of tuberculosis which was necessitated by the need for culture and sensitivity testing of the tuberculosis strain infecting each patient to isoniazid, PAS and streptomycin. The work undertaken in the past by the Headquarters Laboratory in connection with the Medical Research Council therapeutic trials added to the activity in this branch.

278. The amount of general bacteriology, apart from that of the mycobacterial groups, carried out at the Headquarters Laboratory was substantial, although there was a decline in the number of specimens dealt with for full cultural examination. During the year 3,450 such specimens were handled as compared with 4,108 in the previous year. Sensitivity tests to the common antibiotics were put up routinely on all pathogens and in the cases of *Staphylococcus aureus* insensitivity to penicillin was recorded in 120 out of 190 strains. It is a matter for some concern especially in the climatic conditions of Dar es Salaam where

skin infections are particularly common that penicillin resistant strains of *Staphylococcus aureus* have risen steadily from 40 per cent in 1954 to 44 per cent in 1955, 56 per cent in 1957 and 63 per cent in 1958.

279. It was not possible to record much progress in the development of clinical virology facilities. It had been hoped to embark on tissue culture work but the delivery of essential apparatus was delayed. The scope of the tests performed, however, remained unchanged and as, unlike in the previous year, no influenza epidemic occurred, activity in the diagnostic field was limited to the isolation of vaccinia-variola virus in the differentiation of chicken pox and alastrim.

280. There was a substantial increase in the amount of general serology. Standard Widal tests numbered 878 in Dar es Salaam and 2,837 in the provincial laboratories. In Dar es Salaam 70 of the specimens were presumptive typhoid, 47 presumptive brucellosis and 9 presumptive typhus. The Paul Bunnell test was performed on 32 sera, 2 of which were positive. In the serological testing for syphilis, 3 antigens in the form of the Kahn, P.P.R. and Wasserman tests were used on all sera. During the year a short investigation was carried out at the request of the World Health Organization of the incidence of positive serology among pregnant African women. This investigation confirmed what had been observed in previous years that about 11 per cent of pregnant women had shown positive tests.

281. Full facilities continued to be provided in Dar es Salaam for blood bank transfusion and pregnancy serology. At the smaller hospitals only ABO grouping and tile cross matching was possible. In the provincial laboratories tube cross matching in saline and albumen was carried out and facilities were available for checking patients' Rh grouping.

282. There was a considerable increase in the number of haematological specimens dealt with, there being 27,477 as compared with 21,725 in the previous year. An investigation was carried out to elicit the common cause of adult anaemia in the African population in Dar es Salaam.

283. The amount of biochemistry undertaken was double that of the previous year, the marked increase being in part due to the more general recognition of the high incidence of liver disease among African patients.

284. The number of biopsies examined histologically was 2,219 as compared with 1,826 in the previous year.

285. Of particular interest were malignant and locally malignant neoplasms from African cases which numbered 536, and an analysis of these cases gave some indication of the relative frequency distribution of tissue origin and site of malignant disease in the African population.

286. In Dar es Salaam apart from 31 post-mortems performed at the request of clinicians, 94 medico-legal post-mortems were conducted. In addition tissues from 30 cases in other parts of the Territory were referred to Dar es Salaam for medico-legal histological examination.

## XVI.—TRAINING OF PERSONNEL

287. It was necessary during the year to make certain alterations in the training programme as set forth in the Five Year Development Plan. Although the process of concentration of training in Dar es Salaam continued, it was for financial reasons decided not to proceed during the year with expansion of the training of health nurses. Thus the new health nurses training school planned for Moshi was not built. In the first instance this was merely considered a deferment as expansion of the training of this category is clearly necessary. However on further consideration it has been decided not to build the proposed training school at Moshi and instead to utilise existing facilities at Tanga Hospital now being used for the training of midwives. Midwife training will, at the end of 1959, be concentrated in Dar es Salaam. It was also decided, for the time being at least, not to proceed with the utilization of the Mweka school for the training of first year medical assistants. As for financial reasons it has been necessary to restrict the intake of personnel for training, it is possible now for the whole training of medical assistants to be provided in Dar es Salaam, as the accommodation available there will be sufficient for the numbers of trainees involved.



288. As set forth in the Development Plan it had been the intention to discontinue the training of rural medical aids at Mwanza and at the same time to increase the number of trainees in the medical assistant group. However, in view of the restriction in the number of medical assistant trainees and following representations from the Provincial Commissioners that the Native Authorities would find it difficult to carry the additional financial burden which would be involved by replacing rural medical aids with medical assistants, it was decided to continue in the meantime with this training. Nevertheless the objective is being kept in mind ultimately to train only one type of medical aide, namely, the medical assistant.

#### *Medical Assistants*

289. Although at the beginning of 1957 the intake of trainees was increased this had no effect, naturally, on the output of trained men at the end of the year. In fact the number of government medical assistant trainees who passed the final examination was eight, two less than in the previous year, when it was observed that output was far below the requirements of the Territory. This has perforce to be accepted, but an increased output in 1959 is reasonably anticipated and the availability of medical assistants should be much improved by 1960.

One other centre in the Territory, namely the Lutheran Mission Hospital at Bumbuli, trains this type of personnel, largely to meet the needs of the missions. However any trained men surplus to mission needs are recruited into the government service. The number of trainees from this centre who passed the territorial examination in 1958 was ten.

#### *Dental Assistants*

290. The first batch of six dental assistants who completed training at the end of 1957 were, early in 1958, posted to work on their own. Five of them were posted to up-country district hospitals, namely, Lindi, Tanga, Tabora, Dodoma, and Moshi and were installed personally by the Senior Dental Surgeon. The sixth trained man was retained in Dar es Salaam to help cope with the increasing numbers of patients presenting themselves at the dental unit at the Princess Margaret Hospital. Throughout the year these men have done very good work and the popularity of this new service already shows signs of becoming so great as possibly to cause embarrassment in the near future. At the end of the year five trainees sat the final examination in Dar es Salaam. Three of them passed and will be available for posting up-country early in 1960.

#### *Nurses*

291. As foretold in the previous report the Nurses' Training School at Mweka was closed at the end of 1957 and this type of training was concentrated in the Princess Margaret Hospital in Dar es Salaam. At the end of the year the total number of student nurses in training at the Princess Margaret Training Centre was 258, and 45 females and 36 males passed the final qualifying examination, as compared with 32 females and 35 males in the previous year. In addition 27 nurses completed midwifery training.

During 1958 the total number of nurse trainees, male and female, in mission training schools was 355. The number who sat the final examination was 112 and 86 were successful. Again 35 mission trainees passed the examination for nurse midwives.

Following the practice of the previous two years two further Tanganyika trained nurse/midwives were sent to the United Kingdom to take the full general nursing training course and the midwifery course. The total number of Tanganyika girls at present in the United Kingdom in training under departmental auspices is six and it is hoped that the first two will return to the Territory at the end of 1960 with full United Kingdom nursing qualifications.

#### *Health Nurses*

292. As previously mentioned it was decided not to build the proposed training school at Moshi. 14 health nurses trained at the existing school at Tukuyu passed the examination at the end of the year.

### *Rural Medical Aids*

293. The training of this category of personnel continued as in the previous year, the first of the two years training being spent in the school at Mwanza and the second at selected district hospitals. The number of government students under training was approximately 72; the number who sat the examination at the end of 1958 was 35 and of these 24 were successful.

Thirteen students from the U.M.C.A. Mission Training Centre at Minaki sat the examination and 11 were successful. In addition 2 students also from the U.M.C.A., Minaki, re-sat the examination in June 1958 and passed.

### *Village Midwives*

294. It was not found possible during the year to expand the training of this group and the four centres which functioned in the previous year continued in use. The number of women in training at the end of the year was 24 and this number is quite insufficient to meet the demand. In the Five Year Development Plan the intention was stated of utilising the accommodation at district hospitals, at present occupied by rural medical aids, for village midwives when the training of the rural medical aids was discontinued. It will not be possible, in view of present policy with regard to the training of rural medical aids, for this expansion to be achieved as soon as it had been hoped.

### *Assistant Health Inspectors*

295. The total number of assistant health inspectors under training at the end of the year was 56. Of these 20 sat the territorial qualifying examination and 14 of them were successful, the same number as in the previous year. The passing of this examination is accepted for entry into the service as an assistant health inspector, but so too is the passing of the inter-territorial examination of the Royal Society of Health. The number of Tanganyika candidates who sat this latter examination was 20 and only one passed. It is of note that the man who passed this examination was one of the men who failed in the territorial examination. This experience indicates the presence of anomalies in these two examinations and steps will be taken to endeavour to see that these are in future removed.

### *Other Assistants*

296. The training of pharmaceutical, laboratory and hospital stewards' assistants continued as in previous years. The numbers in each category who sat the qualifying examinations were 4, 2 and 2 respectively. All succeeded in passing.

297. The table below sets forth the numbers of the various categories of trainees in government and mission training centres who passed the final qualifying examination in 1958.

							Government Training Centres		Mission Training Centres
Medical Assistants	...	...	...	...	...	...	8	...	10
Dental Assistants	...	...	...	...	...	...	3	...	—
Laboratory Assistants	...	...	...	...	...	...	2	...	—
Pharmaceutical Assistants	...	...	...	...	...	...	4	...	—
Hospital Stewards' Assistants	...	...	...	...	...	...	2	...	—
Malaria Assistants	...	...	...	...	...	...	4	...	—
Rural Medical Aids	...	...	...	...	...	...	24	...	13
Assistant Health Inspectors	...	...	...	...	...	...	14	...	—
Health Orderlies	...	...	...	...	...	...	19	...	—
Health Nurses	...	...	...	...	...	...	14	...	—
Nurses	...	...	...	...	...	...	81	...	86
Midwives	...	...	...	...	...	...	27	...	35
TOTALS							202	...	144

298. The Nurses and Midwives Council established under the Nurses and Midwives Registration Ordinance, 1952, continued to be responsible for all matters relating to the training of nurses and midwives and also for the maintenance of the register of qualified persons. The Council met on two occasions during the year.



299. The Tanganyika Medical Training Board had the responsibility for regulating the training and examination of the other types of personnel mentioned above. This Board, under the Chairmanship of the Director of Medical Services has members representative of Government and Mission training centres.

300. The mission nurses training centres continued as in the previous years but arrangements were made for the discontinuance of this type of training at one mission in the Southern Province. One additional nurses training school was established during the year. The Lutheran Mission at Bumbuli in the Tanga Province continued to train medical assistants and the U.M.C.A. Mission at Minaki continued with the training of rural medical aids. Rural medical aid training was substituted for nursing training at the mission in the Southern Province already referred to.

301. The contribution of the missions to the training of medical auxiliary personnel is very important indeed and this work was assisted by the payment by Government of a total of £16,636 in training grants to these institutions.

XVII.—MISSION MEDICAL SERVICES

302. As in the past years the Christian Missions made a very important contribution to the Territory's medical services, and there were few districts of the Territory which did not benefit from their work. There are still a few districts where Government medical facilities are rudimentary or non-existent but where mission hospitals are filling a very important gap. In many other districts Government medical facilities are materially supplemented by the work of mission hospitals.

303. Grants-in-aid to the missions from central Government were maintained at the high level which they had reached in the previous two years and a sum of £132,000 was provided in the 1958/59 estimates of the Medical Department for this purpose. In addition a considerable number of the missions received important financial assistance from Native Authorities. The grants actually paid by Central Government in the year under review are shown in the following table compared with those of the previous three years:—

	1954/55	1955/56	1956/57	1957/58
	£	£	£	£
Staff Grants ... ..	61,974	67,341	71,335	79,350
Training Grants ... ..	7,604	12,400	14,195	16,636
Hospital Additional Grants ... ..	2,250	21,272	20,597	25,670
	<hr/> 71,828 <hr/>	<hr/> 101,013 <hr/>	<hr/> 106,127 <hr/>	<hr/> 121,656 <hr/>

304. Although no new mission hospitals were opened additional accommodation and facilities at a number of existing hospitals were provided and dispensary work was to some extent developed. Trained staff was again augmented by the output of the mission training schools and the number of expatriate medical and nursing personnel also increased.

305. As already mentioned the American Southern Baptist Convention was active during the year building a 100 bed tuberculosis hospital. This should be functioning early in 1959 and will be a notable addition to the medical facilities of the Territory. The Lutheran Mission at Lutindi maintained its institution for the care of chronic mental cases. It was visited regularly by the Specialist Psychiatrist and financial assistance was again provided by Government.

XVIII.—RESEARCH

306. Reference has already been made to the tuberculosis therapy trials being undertaken for the Medical Research Council at Kibongonto, Kongwa, and the Infectious Diseases Hospital, Dar es Salaam. The headquarters laboratory in Dar es Salaam continued to play an important role in these investigations.

307. At Mwanza, the East African Medical Research Institute and at Amani, the East African Malaria Institute continued to be the two most important organizations devoted to medical research. Interesting and useful work was carried out and is recorded in the reports of the East Africa High Commission.

308. As mentioned earlier the Sleeping Sickness Specialist at Tabora continued his therapeutic trials with particular reference to the treatment of the late stages of sleeping sickness.

309. The Malaria Unit once again carried out useful investigational work. A number of the projects pursued are listed below:—

- (i) *Larvicides on Fishponds, Korogwe.*  
The analysis of the effect of various mosquito larvicides upon edible fish continued.
- (ii) *Pyrimethamine Resistance, Tanga Province.*  
This was an extension of the Mkuzi scheme, referred to in the previous report, to the rest of the Tanga Province. Susceptibility testing of *Plasmodium falciparum* resistant to pyrimethamine was carried out.
- (iii) *Trials of new anti-malaria drugs, Muheza.*  
The properties of three new chloroquine preparations were investigated. These were the tasteless tannate which appeared to be almost but not quite as effective as standard diphosphate, the diphosphate granules and enteric-coated pills of diphosphate both of which proved to be effective and were useful in disguising the bitter taste.
- (iv) *Chemoprophylaxis in Premune Adults and Schoolchildren.*  
This was an investigation of the smallest protective dose of chloroquine amongst the premune Africans in Tanganyika.
- (v) *Bilharzia and Mollusc Survey, Tanga Province.*  
This was an investigation of bilharzia and snail incidence in Handeni and Korogwe districts which has been referred to in the section of this report dealing with malaria.
- (vi) *Observations on Rodents and Fleas—Singida and Morogoro.*  
Further surveys of wild and domestic rodents and their ecto-parasites in a plague focus, Singida, and a non-plague area, Morogoro, were carried out.

## XIX.—CENTRAL MEDICAL STORES

310. The Central Medical Store is situated in Dar es Salaam and is under the charge of a Chief Storekeeper.

311. The year under review was one of progress towards a more efficient organization and there was a noticeable speeding up in the delivery of supplies to indenting units. Certain alterations were carried out during the year which provided extra space and greater efficiency. The cold stores after operating efficiently for some months had to be shut down to allow repairs to the roof to be carried out. This work continued for the remainder of the year and the absence of cold storage facilities was seriously felt. A piped water system for fire prevention was installed and fire hoses will be provided.

312. The Pharmaceutical Laboratory ceased to function as a manufactory except for the preparation of transfusion solutions. The machinery in the laboratory however, was carefully maintained.

313. The Repairs and Recovery Section continued to carry out many types of repairs, although the section was given some relief by the repair of refrigerators and electrical apparatus being to a large extent taken over by the Public Works Department. The instrument mechanic in charge of this section was on overseas leave for nearly 6 months and it is a tribute to the training he has given to the apprentices from the Ifunda Trade School that the work of the section carried on adequately in his absence.













TANGANYIKA

Annual Report  
of the  
Medical Department  
1958

Volume II  
(Statistics)



1959  
PRINTED BY THE GOVERNMENT PRINTER  
DAR ES SALAAM  
*Price: Shs. 4/-*





# **Annual Report of the Medical Department for the year 1958**

## **Volume II (Statistics)**



# CONTENTS

## PART ONE—STAFF

			PAGE
TABLE	I.	Establishment ... ..	2
TABLE	II.	Morbidity and Mortality, European Officials ...	5

## PART TWO—TRAINING

TABLE	III.	Medical Training—Approved Medical and Nursing Training Centres ... ..	8
-------	------	---	---

## PART THREE—HOSPITAL AND DISPENSARY SERVICES

TABLE	IV.	Government Hospitals and Dispensaries ... ..	11
TABLE	V.	In-Patients—Government Hospitals and Dispensaries	15
TABLE	VI.	Out-Patients—Government Hospitals and Dispensaries ... ..	17
TABLE	VII.	Maternity and Child Health Services ... ..	19
TABLE	VIII A.	Leprosaria ... ..	20
TABLE	VIII B.	Leprosy Out-Patient Clinics ... ..	21
TABLE	IX.	Native Authority Medical Services ... ..	22
TABLE	X.	Mission Medical Services ... ..	23

## PART FOUR—MORBIDITY AND MORTALITY

		Morbidity and Mortality Experience ... ..	26
TABLE	XI.	Diseases—In-Patients, Government and Mission Hospitals ... ..	27
TABLE	XII.	Diseases—Out-Patients, Government and Mission Hospitals ... ..	36

# PART I

---

Staff



# TABLE I

## ESTABLISHMENT

(as at 31st December, 1958)

### HEADQUARTERS AND ADMINISTRATION

1	Director of Medical Services.
1	Deputy Director of Medical Services.
3	Assistant Directors of Medical Services.
1	Matron-in-Chief.
1	Secretary.
1	Senior Treasury Accountant.
5	Women Administrative Assistants.
1	Treasury Accountant.
1	Accounts Officer.
5	Stenographers.
4	Temporary Stenographers.
9	Temporary Executive Assistants.
1	Office Supervisor.
3	Office Assistants.
2	Accounts Assistants.
227	Clerks.
17	Telephone Operators.

### STORES

1	Chief Storekeeper.
1	Stores Officer.
1	Instrument Mechanic.
5	Junior Assistant Instrument Mechanics.
11	Stores Assistants.
1	Office Supervisor.
1	Accounts Assistant.
17	Clerks.
1	Head Packer.
1	Security Assistant.

### HOSPITAL AND HEALTH SERVICES

2	Senior Specialists.
6	Specialists.
1	Medical Superintendent.
8	Senior Medical Officers.
117	{ Special Grade Medical Officers and Medical Officers.
	{ Assistant Surgeons.
	{ Medical Officers (E.A.)
23	Assistant Medical Officers.

12	Matrons.	21
144	Nursing Sisters.	2
7	Sister Housekeepers and Housekeepers.	
4	Physiotherapists.	1
1	Male Charge Nurse.	
6	Assistant Nursing Sisters/Assistant Charge Nurses.	3
9	Senior Staff Nurses/Senior Staff Midwives.	2
445	Nurses/Midwives.	
1	Chief Medical Assistant.	
20	Senior Medical Assistants.	1
183	Medical Assistants.	
1	Chief Pharmacist.	1
3	Pharmacists.	1
3	Senior Compounders.	
3	Senior Pharmaceutical Assistants.	
31	Pharmaceutical Assistants.	
2	Senior Hospital Secretaries.	1
1	Hospital Secretary.	
1	Laundry Manager.	
4	Stewards.	3
2	Senior Hospital Stewards' Assistants.	2
10	Hospital Stewards' Assistants.	
1	Hospital Welfare Officer.	
6	Hospital Welfare Assistants.	
1	Foreman Transport.	
13	Motor Drivers.	
1	Chief Health Inspector.	
32	Health Inspectors.	
1	Senior Health Visitor.	
26	Health Visitors.	
5	Senior Assistant Health Inspectors.	
77	Assistant Health Inspectors.	
45	Sanitary Inspectors.	
1	Senior Staff Health Nurse.	
58	Health Nurses.	
15	Ambulance Men.	
12	Temporary Housekeeping Assistants.	
1	Assistant Caterer.	
1	Junior Draughting Assistant.	
1	Laundry Foreman.	

#### DENTAL

1	Senior Dental Surgeon.	
7	Special Grade Dental Surgeons and Dental Surgeons.	
1	Senior Dental Mechanic.	
1	Dental Mechanic.	



- 12 Dental Assistants.
- 2 Junior Dental Assistants.

#### CHILD HEALTH

- 1 Specialist.

#### LEPROSY

- 2 Medical Officers.
- 2 Leprosy Nurses.

#### MALARIA

- 2 Entomologists.
- 5 Malaria Field Officers.
- 5 Senior Malaria Assistants.
- 39 Malaria Assistants.
- 19 Junior Malaria Assistants.

#### MENTAL

- 1 Specialist.
- 1 Medical Officer.
- 1 Chief Male Nurse.
- 1 Matron Grade I.
- 6 Charge Nurses.
- 6 Nursing Sisters.
- 2 Medical Assistants.
- 1 Assistant Charge Nurse.
- 1 Senior Staff Nurse.
- 2 Nurses.

#### TUBERCULOSIS

- 1 Specialist.
- 2 Medical Officers.
- 1 Steward.
- 2 Nursing Sisters.
- 3 Medical Assistants.

#### SLEEPING SICKNESS

- 1 Specialist.
- 4 Junior Sleeping Sickness Assistants.

#### LABORATORY SERVICES

- 1 Senior Pathologist.
- 3 Pathologists.
- 3 Laboratory Technologists.
- 6 Senior Laboratory Assistants.
- 44 Laboratory Assistants.
- 49 Junior Laboratory Assistants.

#### X-RAY

- 1 Specialist Radiologist.
- 1 Radiological Technician.
- 3 Radiographers.

- 1 Senior Radiographic Assistant.
- 4 Radiographic Assistants.
- 4 Junior Radiographic Assistants.
- 1 X-ray Mechanic.

MEDICAL EDUCATION

- 1 Senior Medical Officer.
- 1 Medical Officer.
- 3 Medical Instructors.
- 6 Wardens.
- 1 Senior Sister Tutor.
- 8 Sister Tutors and Midwifery Tutor.
- 1 Senior Medical Assistant.
- 3 Medical Assistants.

HEALTH EDUCATION

- 1 Senior Medical Officer.
- 1 Health Visitor.
- 1 Health Inspector.

TABLE II

MORBIDITY AND MORTALITY—EUROPEAN OFFICIALS

Total number of European officials in Service (excluding High Commission) Staff List October 1958										2,778
Deaths	...	...	...	...	...	...	...	...	...	8
Invalidings	...	...	...	...	...	...	...	...	...	2
Number admitted to hospitals	...	...	...	...	...	...	...	...	...	432
Number sick in quarters	...	...	...	...	...	...	...	...	...	141
Total number of days off duty	...	...	...	...	...	...	...	...	...	3,296
Average days off duty per patient	...	...	...	...	...	...	...	...	...	5.75

*Causes of Morbidity and Mortality:*

(a) *Mortality:*

*Disease:*

1. Coronary disease	...	...	...	...	...	1
2. Injuries by car accident	...	...	...	...	...	1
3. Carcinoma of pancreas	...	...	...	...	...	1
4. Aortic aneurysm	...	...	...	...	...	1
5. Carcinoma of lung	...	...	...	...	...	1
6. Injuries by elephant	...	...	...	...	...	1
7. Injuries by gun shot	...	...	...	...	...	1
8. Aortic stenosis	...	...	...	...	...	1
						8



(b) *Morbidity* (diseases diagnosed):

Infective and Parasitic Diseases ... ..	140
Neoplasms ... ..	4
Allergic, Endocrine System, Metabolic and Nutritional Diseases and Diseases of the Blood-forming Organs ... ..	9
Mental, Psychoneurotic and Personality Disorders ... ..	5
Diseases of the Nervous System and Sense Organs ... ..	18
Diseases of the Circulatory System ... ..	21
Diseases of the Respiratory System ... ..	110
Diseases of the Digestive System ... ..	73
Diseases of the Genito-Urinary System ... ..	18
Diseases of the Skin and Cellular Tissues and Diseases of the Bones and Organs of Movement ... ..	60
Congenital Malformation ... ..	3
Symptoms, Senility and Ill-defined conditions ... ..	76
Accidents, Poisonings and Violence ... ..	36
Total ...	573

(c) *Principal causes of morbidity*:

Malaria (all forms) ... ..	76
Acute upper respiratory infections ... ..	43
Influenza ... ..	41
Pyrexia of unknown origin ... ..	36
Infections of skin and subcutaneous tissue ... ..	31
Diseases of the digestive system ... ..	29
Ill-defined causes of morbidity ... ..	26

## **PART II**

---

### **Training**



TABLE III

MEDICAL TRAINING  
APPROVED MEDICAL AND NURSING TRAINING CENTRES

Category of Student	Training Centre	Training Authority	Length of Course (Years)	Total Students under training during 1958	Students Qualified 1958	Total Qualified in each category in 1958
Medical Assistants ...	Dar es Salaam ...	Government ...	3	64	8	18
Laboratory Assistants ...	Bumbuli ...	Lutheran Mission ...	3	31	10	2
Pharmaceutical Assistants ...	Dar es Salaam ...	Government ...	3	11	2	4
Dental Assistants ...	Dar es Salaam ...	Government ...	3	13	4	3
Hospital Steward Assistants ...	Dar es Salaam ...	Government ...	3	17	3	2
Rural Medical Aids ...	Dar es Salaam ...	Government ...	2	3	2	
	Mwanza, Morogoro, Dodoma, Mbeya, Iringa, Bukoba, Lindi ...	Government ...	2	77	24	37
	Minaki... ..	U.M.C.A. ...	2	33	13	16
Assistant Health Inspectors ...	Kongwa ...	Government ...	3	60	16	19
Health Orderlies ...	Kongwa ...	Government ...	1	21	19	14
Health Nurses ...	Tukuyu ...	Government ...	2	36	14	4
Malaria Assistants ...	Amani ...	Government ...	2	9	4	
Nurses ...	Dar es Salaam (male and female)	Government ...	3	304	81	
	Tanga (female) ...	Government ...	3	74	22	
	Mvumi (male and female) ...	C.M.S. ...	3	53	5	
	Peramiho (male and female)	Benedictine ...	3	35	7	
	Mnero (male) ...	Benedictine ...	3	35	15	
	Magila (female) ...	U.M.C.A. ...	3	53	6	167
	Lulindi (female) ...	U.M.C.A. ...	3	51	12	
	Sumve (female) ...	White Fathers ...	3	46	13	
	Kiomboi (male and female)	Augustana Lutheran ...	3	30	6	
	Ndolage (female) ...	Church of Sweden Mission ...	3	23	-	
	Kolandoto (male and female)	Africa Inland Mission ...	3	27	27	
Midwives ...	Dar es Salaam ...	Government ...	1	28	17	
	Mvumi ...	C.M.S. ...	1 or 2	18	17	
	Ndanda ...	Benedictine ...	1 or 2	15	-	62
	Magila ...	U.M.C.A. ...	1 or 2	12	11	
	Sumve ...	White Fathers ...	1 or 2	6	7	
	Kagunguli ...	White Fathers ...	2	6	4	
Village Midwives ...	Korogwe ...	U.M.C.A. ...	2	5	1	
	Newala ...	U.M.C.A. ...	2	10	6	
	Liuli ...	U.M.C.A. ...	2	1	1	34
	Tabora ...	Government ...	1	6	5	
	Nzega ...	Government ...	1	13	8	
	Iringa ...	Government ...	1	6	5	
	Arusha ...	Government ...	1	5	4	

## **PART III**

---

### **Hospital and Dispensary Services**





TABLE IV  
GOVERNMENT HOSPITALS AND DISPENSARIES  
as at 31st December, 1958

Province	Hospital	No. of Wards	Number and Category of Beds					Grade of Accommodation
			General	Obstetrics	Tubercu- losis	Infectious	Mental	Total
Dar es Salaam	Ocean Road Sewa Haji	32	54	I.—GENERAL HOSPITALS				
		12	292	15	1	4	1	75
Central Province	Dodoma ... Kongwa ... Mpwapwa Kondoa ... Singida ...	21	142	16	—	12	—	170
		5	70	5	60	—	—	135
		5	32	—	—	—	—	32
		10	36	3	—	7	—	46
		5	52	—	—	8	—	60
								I, II, III and IV I, and IV IV IV IV
Eastern Province	Morogoro Bagamoyo Kilosa ... Mahenge Utete ...	16	162	14	—	8	—	184
		5	32	4	—	3	—	39
		8	75	13	—	12	—	100
		10	78	—	—	—	—	78
		3	33	—	—	—	—	33
								I, III and IV III and IV II, III and IV III, IV IV
Lake Province	Mwanza Bukoba ... Musoma ... Shinyanga Biharamulo Ukerewe ... Geita ... Maswa ... Tarime ...	19	184	17	7	12	—	220
		8	134	12	8	4	—	158
		17	84	13	4	—	—	101
		6	64	13	—	4	—	81
		5	35	4	3	—	—	42
		5	52	—	—	8	—	60
		5	52	—	—	8	—	60
		4	24	4	—	2	—	30
		1	10	—	—	—	—	10
								I, II and IV II, III and IV I, II and IV II and IV IV II, III and IV IV IV IV

TABLE IV—(contd.)

GOVERNMENT HOSPITALS AND DISPENSARIES

as at 31st December, 1958

Province	Hospital	No. of Wards	Number and Category of Beds					Grade of Accommodation
			General	Obstetrics	Tubercu- losis	Infectious	Mental	Total
Northern Province	Arusha ...	20	140	14	—	8	—	162
	Moshi ...	19	229	10	—	24	—	263
	Monduli ...	5	58	—	1	—	—	59
	Mbulu ...	5	60	6	38	—	—	104
	Oldeani ...	8	38	5	22	—	—	65
Southern Province	Mtwara ...	6	37	4	18	—	—	59
	Lindi ...	7	86	13	4	—	—	103
	Nachingwea ...	15	48	6	45	4	—	103
	Songea ...	6	49	6	—	1	—	56
	Kilwa ...	5	30	—	—	6	—	36
	Tunduru ...	2	24	—	—	—	—	24
	Newala ...	4	32	—	—	8	—	40
	Mbeya ...	18	92	11	—	6	—	109
	Iringa ...	15	92	15	—	4	—	111
	Tukuyu ...	7	75	6	—	4	—	85
Tanga Province	Chunya ...	4	24	—	—	9	—	33
	Njombe ...	4	32	—	—	4	—	36
	Tanga ...	15	292	33	—	—	—	325
	Korogwe ...	7	75	6	35	—	—	116
	Lushoto ...	8	29	4	12	2	—	47
	Muheza ...	7	52	—	46	8	—	106
	Pangani ...	8	19	6	—	1	—	26
	Same ...	3	25	1	—	4	—	30
	Tabora ...	17	193	17	—	6	—	216
	Kigoma ...	6	56	6	—	—	—	62
Western Province	Nzega ...	8	56	40	—	—	—	96
	Kibondo ...	3	44	—	—	8	—	52
	Sumbawanga ...	5	52	—	—	4	—	56
	Kahama ...	5	52	16	—	—	—	68
TOTAL—GENERAL HOSPITALS	50	444	3,788	358	304	203	1	4,654



TABLE IV—(contd.)  
GOVERNMENT HOSPITALS AND DISPENSARIES

as at 31st December, 1958

Province	Hospital	No. of Wards	Number and Category of Beds					Grade of Accommodation
			General	Obstetrics	Tubercu- losis	Infectious	Mental	Total
Dar es Salaam	Infectious Diseases	26	—	II.—SPECIAL HOSPITALS	105	56	—	161
	Muhimbili Maternity	6	—	40	—	—	—	40
	Mental holding unit	10	—	—	—	—	10	10
Central Province	Mirembe Mental	31	—	—	—	—	618	618
	Isanga Mental	18	—	—	—	—	212	212
Northern Province...	Kibongoto Tuberculosis	7	10	12	294	—	—	316
Tanga Province	Tanga Infectious	1	—	—	36	—	—	36
	Diseases							
TOTAL—SPECIAL HOSPITALS	7	99	10	52	435	56	840	1,393

TABLE IV—(contd.)  
GOVERNMENT HOSPITALS AND DISPENSARIES  
as at 31st December, 1958

Province	Hospital	No. of Wards	Number and Category of Beds					Grade of Accommodation
			General	Obstetrics	Tubercu- losis	Infectious	Mental	Total
Central Province ...	Manyoni Itigi ...	4	18	III.—DISPENSARIES	—	2	—	22
		3	10		—	—	—	10
Eastern Province ...	Kingolwira Mafia ... Malindi ... Ukonga ...	3	46		—	—	—	46
		4	16		1	—	—	18
		1	10		—	—	—	10
		1	10		—	—	—	10
Lake Province ...	Ngara ... Ngudu ...	2	24		—	—	—	24
		2	16		—	—	—	16
Northern Province...	Magugu ...	2	10		—	—	—	10
Southern Province	Liwale ...	4	22		—	—	—	22
Southern Highlands Province	Malangali Kyela ... Makete ...	4	19		—	1	—	23
		3	20		—	2	—	22
		4	34		2	—	—	36
Tanga Province ...	Handeni ... Usangi ...	6	24		—	—	—	24
		5	36		4	4	—	44
Western Province ...	Mpanda ... Kakonko... Kassanda Kasanga Kasulu ...	2	10		—	—	—	10
		2	16		—	—	—	16
		1	4		—	—	—	4
		1	6		—	—	—	6
		3	22		—	—	—	22
TOTAL DISPENSARIES ...	20	57	373	12	1	9	—	395
TERRITORIAL TOTAL ...	77	600	4,171	422	740	268	841	6,442

TABLE V

IN-PATIENTS—GOVERNMENT GENERAL AND SPECIAL HOSPITALS AND DISPENSARIES  
 Figures refer to the twelve-month period 1st December, 1957—30th November, 1958

	Number admitted during the year							Number discharged during the year							Deaths							Daily average in hospital						
	European		Asian		African		Total	European		Asian		African		Total	European		Asian		African		Total	European		Asian		African		Total
	M	F	M	F	M	F		M	F	M	F	M	F		M	F	M	F	M	F		M	F	M	F	M	F	
	I. GENERAL HOSPITALS																											
Dar es Salaam ...	473	521	442	426	6,106	2,136	10,104	466	509	425	411	5,929	2,062	9,802	7	3	18	13	166	87	291	9.00	9.60	9.97	7.37	192.02	60.15	288.11
Central Province ...	86	69	24	42	5,805	4,624	10,650	81	69	23	39	5,510	4,459	10,181	2	—	1	4	266	174	447	1.50	1.60	0.48	0.83	176.22	147.88	328.51
Eastern Province ...	76	71	56	75	5,115	3,322	8,715	78	70	52	72	4,827	3,162	8,261	—	—	—	—	266	174	447	1.50	1.60	0.48	0.83	176.22	147.88	328.51
Lake Province ...	115	83	128	153	10,363	9,836	20,678	114	82	126	44	9,810	9,429	19,605	2	—	4	5	186	108	303	1.64	1.10	3.33	6.78	221.20	96.94	330.99
Northern Province ...	235	287	115	143	9,629	17,754	28,163	228	277	109	144	9,267	7,910	17,935	2	—	4	7	547	383	943	1.80	1.60	2.60	2.10	345.00	239.00	592.10
Southern Province ...	38	43	65	37	4,512	2,949	7,644	35	42	64	37	4,358	2,858	7,394	5	3	6	2	354	566	936	—	—	2.21	1.46	300.29	217.79	521.75
S. Highlands Province ...	147	153	56	83	5,373	5,546	11,358	141	149	52	82	5,201	5,372	10,997	2	1	2	—	138	92	235	0.70	0.75	1.10	0.44	208.03	155.98	367.00
Tanga Province ...	140	207	111	250	8,109	3,653	12,470	136	199	193	238	7,750	3,030	11,546	4	3	5	1	144	146	303	2.40	2.57	0.89	1.11	161.34	145.99	314.30
Western Province ...	41	56	64	95	6,588	6,893	13,737	44	55	60	90	6,440	6,800	13,489	2	3	16	9	354	171	555	3.54	7.25	5.49	3.28	351.69	135.57	506.82
TOTAL GENERAL HOSPITALS ...	1,351	1,490	1,061	1,304	61,600	56,713	123,519	1,323	1,452	1,104	1,157	59,092	45,082	109,210	—	1	4	5	233	246	489	1.26	0.91	0.89	1.18	229.97	193.15	427.36
	II. SPECIAL HOSPITALS																											
DAR ES SALAAM Infectious Diseases Hospital ...	—	—	12	2	432	157	603	—	—	11	2	420	150	583	—	—	—	—	19	9	28	—	—	0.68	0.40	87.27	24.43	112.78
Mental Holding Unit ...	—	—	—	—	73	18	91	—	—	—	—	71	18	89	—	—	—	—	—	—	—	—	—	—	—	0.21	0.05	0.26
CENTRAL PROVINCE Mirembe Hospital ...	9	1	16	10	281	146	463	10	3	14	6	232	81	346	—	1	—	—	47	44	92	3.91	7.83	31.53	8.16	369.00	177.75	593.23
Isanga Institution ...	—	—	2	—	52	14	68	—	—	2	—	41	8	51	—	—	—	—	4	1	5	—	—	5.80	—	149.60	35.70	191.10
NORTHERN PROVINCE Kibongoto Hospital ...	—	—	21	5	1,501	799	2,326	—	—	23	10	1,500	791	2,324	—	—	—	—	24	14	33	—	—	7.00	4.00	223.00	180.00	414.00
TANGA PROVINCE Infectious Diseases Hospital ...	—	—	10	—	120	—	130	—	—	9	—	116	—	125	—	—	1	—	4	—	5	—	—	2.30	—	32.84	—	35.14
TOTAL SPECIAL HOSPITALS ...	9	1	61	17	2,459	1,134	3,681	10	3	59	18	2,380	1,048	3,518	—	1	1	—	98	68	163	3.91	7.83	47.36	12.56	861.92	417.93	1,351.51
	III. DISPENSARIES																											
Central Province ...	—	—	—	—	703	452	1,155	—	—	—	—	687	437	1,124	—	—	—	—	16	16	32	—	—	—	—	11.80	8.30	20.10
Eastern Province ...	—	—	—	—	630	283	913	—	—	—	—	603	271	874	—	—	—	—	6	7	13	—	—	—	—	11.78	5.11	16.89
Lake Province ...	—	—	—	—	660	656	1,316	—	—	—	—	624	621	1,245	—	—	—	—	40	26	66	—	—	—	—	17.00	19.00	36.00
Northern Province ...	—	—	—	—	296	112	408	—	—	—	—	290	108	398	—	—	—	—	6	3	9	—	—	—	—	6.70	4.00	10.70
Southern Province ...	—	—	—	—	131	108	239	—	—	—	—	123	105	228	—	—	—	—	3	1	4	—	—	—	—	5.94	4.82	10.76
S. Highlands Province ...	—	—	—	—	1,285	1,497	2,782	—	—	—	—	1,220	1,451	2,671	—	—	—	—	33	27	60	—	—	—	—	25.62	37.00	62.62
Tanga Province ...	—	—	—	—	1,171	1,362	2,533	—	—	—	—	1,149	1,339	2,488	—	—	—	—	12	7	19	—	—	—	—	10.90	7.24	18.14
Western Province ...	—	—	2	1	954	699	1,656	—	—	2	1	915	686	1,604	—	—	—	—	43	31	74	—	—	0.01	—	30.42	17.12	47.55
TOTAL DISPENSARIES ...	—	—	2	1	5,830	5,169	11,002	—	—	2	1	5,611	5,018	10,632	—	—	—	—	159	118	277	—	—	0.01	—	120.16	102.59	222.76
TERRITORIAL TOTALS ...	1,360	1,491	1,124	1,322	69,889	63,016	138,202	1,333	1,455	1,165	1,176	67,083	51,148	123,360	24	15	61	46	2,645	2,159	4,950	25.75	33.21	74.33	37.11	3,167.84	1,912.97	5,251.21





TABLE VI

OUT-PATIENTS—GOVERNMENT GENERAL AND SPECIAL HOSPITALS AND DISPENSARIES

Figures refer to the twelve-month period 1st December, 1957—30th November, 1958

I. GENERAL HOSPITALS

Province	Total Attendances						Total New Cases					
	Male			Female			Male			Female		
	European	Asian	African	European	Asian	African	European	Asian	African	European	Asian	African
Dar es Salaam	3,908	9,125	245,369	3,253	1,082	131,808	2,663	2,271	75,311	2,193	463	44,036
Central Province	1,449	2,108	110,694	1,042	811	81,012	717	1,222	51,118	650	573	33,892
Eastern Province	959	1,281	88,542	830	720	67,939	679	1,184	49,057	585	681	30,366
Lake Province	1,404	2,990	236,128	940	1,551	157,449	989	2,257	133,953	675	1,250	84,269
Northern Province	2,994	617	160,332	3,646	310	98,706	1,647	328	81,790	1,625	208	45,152
Southern Province	1,585	1,551	173,778	1,086	723	102,139	946	867	72,208	633	450	45,900
S. Highlands Province	1,197	1,055	110,459	1,000	652	79,725	896	670	54,397	804	433	38,053
Tanga Province	2,002	2,272	148,907	1,971	1,458	92,850	1,272	1,359	55,625	1,179	673	30,026
Western Province	1,012	2,177	137,166	839	1,032	92,477	559	1,569	62,329	510	761	39,503
TOTAL—GENERAL HOSPITALS ...	16,510	23,176	1,411,375	14,607	8,339	904,105	10,368	11,727	635,818	8,854	5,492	391,197
												1,063,456

II. SPECIAL HOSPITALS

HOSPITAL	Total Attendances						Total New Cases					
	Male			Female			Male			Female		
	European	Asian	African	European	Asian	African	European	Asian	African	European	Asian	African
DAR ES SALAAM												
Infectious Diseases Hospital ...	—	28	10,232	—	8	4,863	—	—	380	—	—	221
NORTHERN PROVINCE												
Tuberculosis Hospital, Kibongoto ...	55	1,963	67,492	23	827	46,663	38	114	13,736	14	66	10,941
TANGA PROVINCE												
Infectious Diseases Hospital ...	—	566	7,118	—	150	4,512	—	6	276	—	3	172
CENTRAL PROVINCE												
Mirembe Mental Hospital ...	—	2	2	—	3	—	—	2	2	—	3	—
TOT. SPECIAL HOSPITALS	55	2,559	84,844	23	988	56,038	38	122	14,394	14	72	11,334
												25,974





TABLE VII

## MATERNITY AND CHILD HEALTH SERVICES

	Ante-Natal Clinics		No. of Clinics	Child Health Clinics			Total Confinements Attended	Deliveries without Complications	Deliveries with Complications	Abortions	Live Births	Still Births	Maternal Deaths	Infant Deaths	
	First attendances	Total attendances		First attendances	Total attendances	No. of Clinics									
Central Province Eastern Province Lake Province Northern Province Southern Province S. Highlands Province Tanga Province Western Province Dar es Salaam	1,769	6,676	4	1,634	9,932	A. GOVERNMENT SERVICES	844	601	243	81	733	68	15	23	
	1,216	3,928	4	—	—		5	987	815	172	61	903	78	8	14
	8,426	30,473	6	2,623	18,247		5	3,550	2,879	671	401	3,350	236	37	78
	5,160	16,234	14	3,550	20,418		13	2,054	1,784	270	202	1,998	57	10	43
	1,278	6,469	6	1,037	5,813		5	658	588	70	60	617	37	6	24
	1,784	7,821	5	1,926	17,208		2	1,561	1,400	161	141	1,199	129	23	20
	4,030	17,595	14	2,881	38,130		11	1,368	1,189	179	69	1,266	106	25	42
	5,094	16,894	5	2,514	8,511		6	2,918	2,247	671	119	2,749	140	15	88
	4,036	22,758	5	2,713	31,723		5	2,498	1,505	993	48	2,447	131	16	80
Total Govt. Services	32,793	128,848	63	15,683	149,982	57	16,438	13,008	3,430	1,182	15,262	982	155	412	
Central Province Eastern Province Lake Province Northern Province Southern Province S. Highlands Province Tanga Province Western Province	4,592	15,600	12	3,198	10,951	B. MISSION SERVICES	3,142	2,660	482	236	3,059	119	20	80	
	1,714	5,328	5	2,713	7,674		5	980	897	83	75	937	43	2	33
	10,014	21,405	12	1,414	3,758		7	3,401	2,592	809	272	3,247	207	34	117
	4,124	13,331	12	1,797	7,284		11	2,701	2,234	467	149	2,607	109	13	59
	6,899	35,119	35	9,440	48,387		30	3,550	2,771	779	228	3,397	191	19	122
	1,628	4,892	7	1,304	7,572		6	1,216	977	239	63	1,179	47	3	41
	7,350	33,939	11	6,671	25,060		9	2,026	1,568	458	119	1,957	96	11	58
	6,599	22,568	22	6,679	41,482		12	3,803	3,107	696	278	3,706	155	23	103
Total Mission Services	42,920	152,182	116	33,216	152,168	88	20,819	16,806	4,013	1,420	20,089	967	125	613	
Central Province Eastern Province Lake Province Northern Province Southern Province S. Highlands Province Tanga Province Western Province	8,133	18,757	29	4,230	13,016	C. NATIVE AUTHORITY SERVICES	3,985	3,682	303	171	3,869	90	51	97	
	307	1,276	4	1,392	5,450		4	50	34	16	—	50	—	1	—
	4,931	22,122	10	2,573	8,014		11	1,438	1,118	320	58	1,401	38	1	28
	11,738	22,499	10	2,825	6,343		9	3,743	3,650	93	104	3,707	54	1	20
	1,219	10,742	12	1,300	4,429		9	411	397	14	24	402	9	4	8
	3,000	9,910	10	2,029	8,665		8	—	—	—	—	—	—	—	—
	10,713	29,450	19	3,419	12,071		10	2,113	2,041	72	31	2,047	69	6	58
	3,314	7,940	10	1,227	4,828		9	1,362	1,326	36	25	1,351	31	2	2
Total Native Authority Services	43,355	122,696	104	18,998	62,816	79	13,102	12,248	854	413	12,827	291	66	213	
Territorial Total	119,068	403,726	283	67,897	364,966	224	50,359	42,062	8,297	3,015	48,178	2,240	346	1,238	

TABLE VIII A.  
LEPROSARIA (IN-PATIENTS)—GOVERNMENT, NATIVE AUTHORITY AND MISSION

	No. of Leprosaria	Leprosy patients admitted during 1958	Discharged	Absconded	Births	Deaths from Leprosy	Deaths from other causes	Leprosy Patients Resident at 30th November, 1958				Clinical Classification active cases			Cases on Sulphone Therapy				Burnt-out Cases		Non-Lepromatous Persons Resident 30th Nov. 1958		
								Men	Women	Children	Total	Lepromatous	Tuberculoïd	Mixed	Men	Women	Children	Total	Without deformity	With deformity	Adults	Children	Total
Central Province	2	173	44	71	18	1	10	299	180	87	566	349	175	42	294	180	87	561	-	-	7	14	21
Eastern Province	3	271	64	52	13	5	5	385	152	44	581	281	140	160	384	149	44	577	-	7	-	5	5
Lake Province ...	2	229	185	109	23	3	5	504	320	252	1,076	342	702	32	503	316	250	1,069	-	3	89	85	174
Northern Province	1	26	31	-	-	1	-	21	7	-	28	20	7	1	19	4	-	23	-	4	-	-	-
Southern Province	5	400	274	163	44	10	17	716	428	145	1,289	476	717	96	605	350	130	1,085	58	31	107	170	277
S. Highlands																							
Province ...	1	222	56	94	23	-	2	294	170	64	528	278	136	114	290	168	64	522	-	-	21	26	47
Tanga Province	2	64	59	6	1	1	5	102	27	10	139	67	23	49	101	26	10	137	1	10	7	4	11
Western Province	2	73	36	17	9	-	2	248	126	92	466	308	157	1	246	123	92	461	-	-	-	12	12
Dar es Salaam ...	1	42	29	1	-	3	-	19	6	2	27	10	17	-	19	6	2	27	-	-	-	-	-
Totals ...	19	1,500	778	513	131	24	46	2,588	1,416	696	4,700	2,131	2,074	495	2,461	1,322	679	4,462	59	55	231	316	547

TABLE VIII B  
LEPROSY OUT-PATIENT CLINICS  
(INCLUDING GOVERNMENT, NATIVE AUTHORITY AND MISSION CLINICS)

PROVINCE	No. of Clinics	Total cases under Treatment 1958				New cases under Treatment, 1958				Cases under Sulphone Treatment		
		Lepro-matous	Tuber-culoid	Indeter-minate	Total	Lepro-matous	Tuber-culoid	Indeter-minate	Total	Adults	Children under 16	Total
Central Province	6	252	618	74	944	41	188	14	243	807	65	872
Eastern Province	29	1,844	3,458	751	6,053	298	1,098	140	1,536	3,512	565	4,077
Lake Province	66	873	1,605	461	2,939	327	638	148	1,113	2,542	390	2,932
Northern Province	1	20	26	—	46	5	6	—	11	34	—	34
Southern Province	45	1,267	5,555	326	7,148	340	1,173	152	1,665	5,907	532	6,439
Southern Highlands Province	16	24	1,168	58	1,250	28	227	21	276	(b)	(b)	1,245
Tanga Province	115	375	1,405	2,978	4,758	57	364	535	956	3,527	1,210	4,737
Western Province (a)	65	1,054	3,906	301	5,261	241	759	74	1,074	4,772	466	5,238
Dar es Salaam	1	51	237	40	328	21	136	40	197	316	12	328
Totals	344	5,760	17,978	4,989	28,727	1,358	4,589	1,124	7,071	(b)	(b)	25,902

(a) Incomplete figures.  
(b) Figures not available.



TABLE IX  
NATIVE AUTHORITY MEDICAL SERVICES

Province	Number of Dispensaries		Staff			Beds if any	New Cases During 1958			Total Attendances During 1958		
	Grade A	Grade B	M.A.	R.M.S.	Tribal Dressers		Male	Female	Total	Male	Female	Total
Central Province ...	12	54	2	12	58	194	236,260	223,997	460,257	435,622	399,872	835,494
Eastern Province ...	32	77	3	31	112	12	308,216	259,428	567,644	606,608	507,652	1,114,260
Lake Province ...	77	78	4	81	130	391	740,431	702,039	1,442,470	1,440,434	1,390,396	2,830,830
Northern Province ...	23	32	4	23	68	89	250,329	221,338	471,667	419,180	362,674	781,854
Southern Province ...	15	41	3	12	59	65	143,584	124,199	267,783	338,498	332,622	671,120
S. Highlands Province	55	13	1	54	21	4	225,692	218,426	444,118	361,494	496,162	857,656
Tanga Province ...	27	21	1	28	29	39	118,379	109,403	227,782	242,007	217,365	459,372
Western Province ...	22	64	1	24	78	144	261,028	242,046	503,074	549,683	510,178	1,059,861
Totals ...	263	380	19	265	555	938	2,283,919	2,100,876	4,384,795	4,393,526	4,216,921	8,610,447

TABLE X  
MISSION MEDICAL SERVICES

Province	Number of Hospitals and Dispen- saries	Beds	In- Patients admis- sions	Out-Patients	
				New Cases	Total Attendances
I.—GENERAL HOSPITALS WITH DOCTORS					
Central ... ..	5	357	12,811	48,738	118,034
Eastern ... ..	4	325	4,327	50,256	137,457
Lake ... ..	9	922	15,936	73,337	188,902
Northern ... ..	3	211	5,799	22,715	45,585
Southern ... ..	7	841	11,706	69,698	376,351
Southern Highlands ... ..	2	167	4,933	16,445	57,820
Tanga ... ..	4	360	8,840	19,211	91,512
Western ... ..	4	286	4,706	28,160	59,022
TOTALS. General Hospitals ...	38	3,469	69,058	328,560	1,074,683
II.—DISPENSARIES WITH OVER TWENTY BEDS					
Central ... ..	4	108	3,624	13,593	49,026
Eastern ... ..	2	76	860	15,675	99,882
Lake ... ..	2	67	639	21,313	53,000
Northern ... ..	9	368	9,872	49,895	179,073
Southern ... ..	12	803	14,414	87,089	329,375
Southern Highlands ... ..	10	522	11,599	50,703	198,419
Tanga ... ..	7	342	4,821	46,856	119,726
Western ... ..	8	326	4,602	61,984	252,865
TOTALS. Dispensaries with over 20 Beds ...	54	2,612	50,431	347,108	1,281,366
III.—OTHER DISPENSARIES AND CLINICS					
Central ... ..	11	141	4,450	22,136	97,654
Eastern ... ..	25	33	481	100,761	235,581
Lake ... ..	11	35	954	45,866	157,620
Northern ... ..	6	33	752	15,381	31,214
Southern ... ..	25	189	3,732	61,820	470,283
Southern Highlands ... ..	24	51	2,461	117,092	325,844
Tanga ... ..	20	92	1,754	40,561	122,956
Western ... ..	23	94	885	59,074	232,555
TOTALS. Other Dispensaries and Clinics ...	145	668	15,469	462,691	1,673,707
TERRITORIAL TOTALS ...	237	6,749	134,958	1,138,359	4,029,756





## **PART IV**

---

### **Morbidity and Mortality**

## MORBIDITY AND MORTALITY EXPERIENCE

The morbidity and mortality of each group of diseases listed in accordance with the international Statistical Classification of Diseases and Causes of Death and expressed as a percentage of the total in-patient admissions and out-patient attendances of Government and Mission Hospitals (Tables XI and XII) are set out diagrammatically in Figure I. Figure II shows the morbidity and mortality of certain diseases in Group I (the Infective and Parasitic Diseases) expressed as a percentage of (a) total diseases treated, and (b) the total diseases within the Group.

There was little change in morbidity as shown as a percentage of total cases in Figure I. There was a slight fall under Group I, Infective and Parasitic Diseases and in Group VII Diseases of the Respiratory System counterbalanced by a rise in Groups III and IV Allergic, Endocrine system and metabolic and Nutritional diseases and diseases of the blood and blood forming organs and in Group XI Diseases of the Digestive System.

In mortality as a percentage of total deaths there was an appreciable rise in Groups III and IV Allergic, Endocrine system and metabolic and nutritional diseases and diseases of the blood and blood forming organs and in Groups XIV and XV Congenital malformations and certain diseases of early infancy.

In Figure II, the increased morbidity under Pulmonary Tuberculosis reflects the extension of Tuberculosis Services and the table shows a slight fall in the mortality from this disease as a proportion of total group deaths. The case mortality rate from this disease has however fallen from 62·8 per thousand to 53·4 per thousand.

There were no other significant changes within this main group.

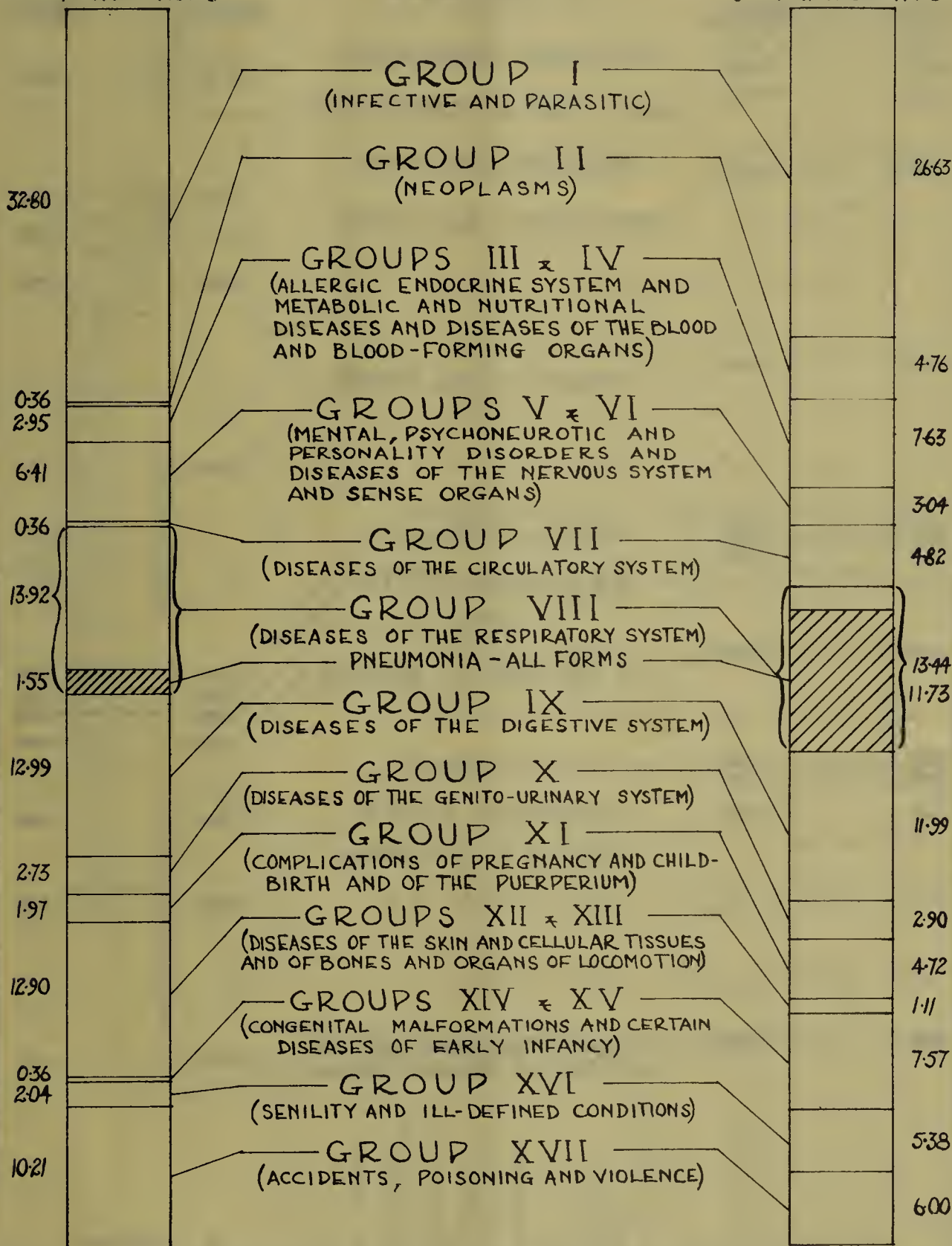
The Chief causes of death were: Pneumonia (all forms) 761, Malaria (all forms) 497, Gastro enteritis (all forms) 330, Tuberculosis (all forms) 306, Meningoccal infections 218, Pyrexias of unknown origin 199 and Tetanus 196.

# ALL DISEASES

FIGURE I

MORBIDITY AS %AGE.  
OF TOTAL CASES

MORTALITY AS %AGE.  
OF TOTAL DEATHS





# FIGURE II INFECTIVE AND PARASITIC DISEASES

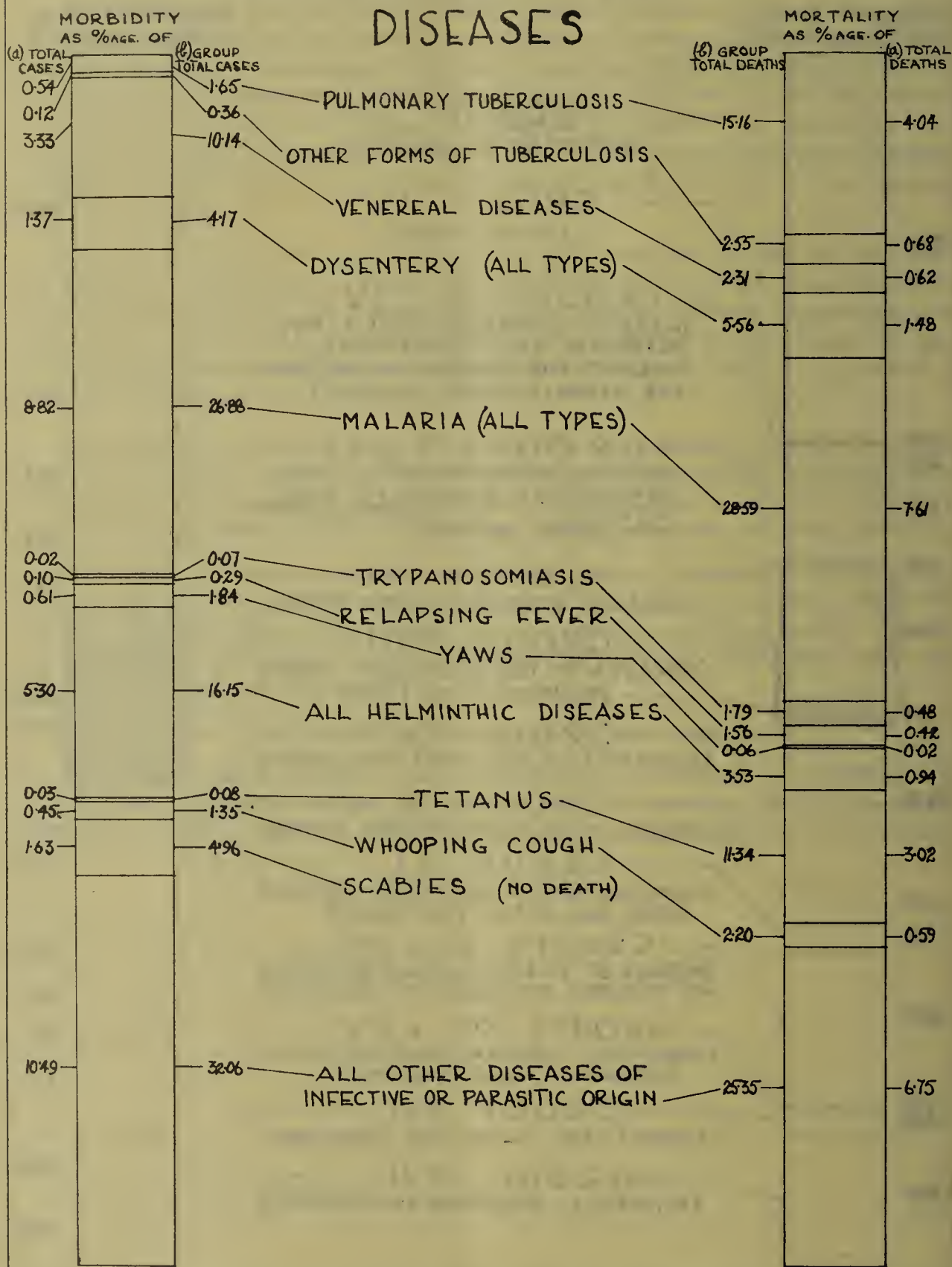


TABLE XI  
DISEASES

IN-PATIENTS—GOVERNMENT AND MISSION HOSPITALS  
(Hospitals with resident doctors only—1st December, 1957 to 30th November, 1958)

DISEASES	GOVERNMENT HOSPITALS						MISSION HOSPITALS						TERRITORIAL CASES				TERRI-TORIAL DEATHS			TERRITORIAL			
	CASES			DEATHS			CASES			DEATHS			Euro-pean	Asian	African	Total Cases	Total Deaths	Percent-age Morbid-ity	Percent-age Mortal-ity				
	M	F	Total	M	F	Total	M	F	Total	M	F	Total											
GROUP I																							
Infective and Parasitic Diseases																							
Tuberculosis of the respiratory system ...	2,653	1,170	3,823	127	60	187	616	464	1,080	45	30	75	9	63	4,831	4,903	262	2.223	4.038				
Tuberculosis of meninges and central nervous system ...	19	18	37	5	2	7	8	5	13	-	3	3	-	4	46	50	10	0.023	0.154				
Tuberculosis of intestines, peritoneum and mesenteric glands	70	41	111	5	5	10	19	31	50	1	3	4	1	3	157	161	14	0.073	0.216				
Tuberculosis of bones and joints ...	197	118	315	3	2	5	66	74	140	-	4	4	-	4	451	455	9	0.206	0.139				
Tuberculosis, all other forms ...	276	187	463	9	9	18	94	60	154	2	2	4	-	4	613	617	11	0.280	0.170				
Congenital syphilis ...	53	73	126	9	6	15	106	133	239	2	3	5	-	-	365	365	20	0.165	0.308				
Early syphilis (Primary and Secondary)	270	164	434	1	1	2	153	343	496	-	1	1	-	3	927	930	3	0.422	0.046				
Tabes dorsalis ...	8	12	20	1	-	1	3	2	5	-	-	1	1	1	23	25	1	0.011	0.015				
General paralysis of insane ...	9	-	9	-	-	-	1	2	3	-	-	-	-	-	12	12	-	0.005	-				
All other syphilis ...	164	39	203	4	2	6	149	206	355	1	-	1	1	3	554	558	7	0.253	0.108				
(a) Gonorrhoea, genito-urinary ...	521	255	776	-	-	-	1,317	1,938	3,255	-	1	1	1	14	4,016	4,031	1	1.827	0.015				
(b) Gonococcal infection of the eye ...	20	11	31	-	-	-	48	58	106	-	-	-	-	1	136	137	1	0.062	-				
(c) Other gonococcal infections ...	240	140	380	5	-	5	26	16	42	3	-	3	3	6	419	422	8	0.191	0.123				
Typhoid fever ...	379	125	504	24	10	34	194	184	378	9	11	20	15	6	861	882	54	0.400	0.832				
Paratyphoid fever and other Salmonella infections ...	13	5	18	-	-	-	8	3	11	-	-	-	1	1	27	29	-	0.013	-				
Cholera ...	31	11	42	-	-	-	32	25	57	-	1	-	6	-	94	100	-	-	-				
Brucellosis (undulant fever) ...	559	288	847	14	11	25	346	348	694	11	6	17	11	10	1,520	1,541	42	0.699	0.015				
(a) Bacillary dysentery ...	496	168	664	5	5	10	237	239	526	2	5	7	47	11	1,132	1,190	17	0.539	0.262				
(b) Amoebiasis ...	572	271	843	19	11	30	263	217	480	2	5	7	14	18	1,291	1,323	37	0.600	0.570				
(c) Other unspecified forms of dysentery	7	-	7	-	-	-	66	59	125	-	-	-	7	7	257	271	4	0.003	-				
Scarlet fever ...	96	50	146	1	2	3	18	16	34	1	1	1	7	2	34	42	2	0.123	0.062				
Streptococcal sore throat ...	6	2	8	-	1	1	18	16	34	1	-	1	7	1	95	100	22	0.019	0.031				
Dysipelas ...	39	25	64	15	4	19	12	24	36	1	2	3	3	2	16	16	4	0.339	0.039				
Septicaemia and pyaemia ...	2	4	6	-	-	-	6	4	10	3	1	4	-	-	16	16	4	0.007	0.062				
Diphtheria ...	182	223	405	4	7	11	254	366	620	13	14	27	1	10	1,014	1,025	38	0.465	0.586				
Whooping cough ...	544	283	827	106	68	174	110	100	210	24	20	44	1	10	1,026	1,037	218	0.470	3.361				
Meningococcal infections ...	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Plague ...	152	40	192	6	1	7	124	86	210	2	-	2	-	-	402	402	9	0.182	0.139				
Leprosy ...	206	121	327	81	53	134	50	58	108	25	37	62	-	6	429	435	196	0.197	3.021				
Tetanus ...	151	113	264	3	3	6	42	50	92	1	2	3	-	-	356	358	9	0.161	0.139				
Anthrax ...	47	51	98	4	2	6	32	28	60	3	2	5	7	-	151	158	11	0.072	0.170				
Acute poliomyelitis ...	6	2	8	2	-	2	11	10	21	5	2	7	-	1	28	29	9	0.013	0.139				
Acute infectious encephalitis ...																							

TABLE XI—(contd.)

## DISEASES

## IN-PATIENTS—GOVERNMENT AND MISSION HOSPITALS

(Hospitals with resident doctors only—1st December, 1957 to 30th November, 1958)

DISEASES	GOVERNMENT HOSPITALS				MISSION HOSPITALS				TERRITORIAL CASES			TERRITORIAL DEATHS			TERRITORIAL							
	CASES			DEATHS			CASES			DEATHS			Euro- pean	Asian	African	Total Cases	Total Deaths	Percent- age Morbid- ity	Percent- age Mortal- ity			
	M	F	Total	M	F	Total	M	F	Total	M	F	Total										
Lata effects of acute poliomyelitis and acute infectious encephalitis ... ..	49	25	74	—	—	—	29	22	51	3	—	3	—	—	121	—	—	3	125	3	0.057	0.046
(a) Variola major ... ..	13	21	34	—	3	3	8	4	12	1	—	1	—	—	46	—	—	6	46	6	0.021	0.093
(b) Variola minor ... ..	109	24	133	2	2	4	4	2	6	—	—	—	—	—	136	—	—	2	139	2	0.063	0.031
Measles ... ..	372	473	845	3	5	8	269	326	595	3	2	5	3	2	1,435	—	13	13	1,440	13	0.653	0.200
Yellow fever... ..	1	1	2	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	3	—	0.001	—
Infectious hepatitis ... ..	211	99	310	17	—	17	96	104	200	7	6	13	1	—	482	—	30	510	30	0.231	0.462	
Rabies ... ..	23	19	42	1	—	1	—	—	—	—	—	—	—	—	41	—	1	42	—	0.019	0.015	
(a) Louse-borne epidemic typhus...	—	—	—	1	—	1	—	5	5	—	2	2	—	—	—	—	3	5	5	0.002	0.046	
(b) Flea-borne endemic typhus ... ..	6	—	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	—	0.003	—
(c) Tick-borne typhus ... ..	2	2	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—	0.002	—
(d) Mite-borne typhus ... ..	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	0.000	—
(e) Typhus unspecified, and other rickett- sial diseases ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—	—
(a) Vivax malaria (benign tertian) ... ..	10	2	12	—	—	—	4	8	12	—	—	—	8	2	14	—	—	2	24	—	0.011	—
(b) Malariae malaria (quartan) ... ..	15	2	17	—	—	—	56	59	115	—	1	1	3	7	132	—	1	132	68	1	0.060	0.015
(c) Falciparum malaria (Malignant tertian) ... ..	12	4	16	—	—	—	3	49	52	2	2	2	—	4	62	—	2	63	250	2	0.031	0.031
(d) Blackwater fever ... ..	3,537	1,923	5,460	83	50	133	2,751	3,314	6,065	59	58	117	140	85	11,300	1	248	11,525	250	5.224	3.854	
(e) Other and unspecified forms of malaria ... ..	47	4	51	1	1	2	3	—	3	1	—	1	3	4	47	—	3	54	54	3	0.024	0.046
(a) Schistosomiasis vesical (S. haemat- o-bium) ... ..	2,721	1,937	4,658	59	42	101	3,212	4,057	7,269	67	73	140	83	99	11,745	—	241	11,927	241	5.406	3.715	
(b) Schistosomiasis intestinal (S. Mansonii) ... ..	716	250	966	—	1	1	1,196	1,000	2,196	2	2	4	7	9	3,146	—	5	3,162	5	1.433	0.077	
(c) Schistosomiasis pulmonary (S. japoni- cum) ... ..	397	168	565	—	3	3	127	114	241	2	—	2	8	3	795	—	5	806	5	0.365	0.077	
(d) Other and unspecified schistosomiasis ... ..	43	—	43	—	—	—	2	—	2	—	—	—	—	—	45	—	—	45	—	0.020	—	
Hydatid disease... ..	156	8	164	1	—	1	1	—	1	—	—	—	1	4	160	—	—	165	—	0.075	—	
(a) Filariasis (bancrofti) ... ..	62	10	72	—	1	1	—	3	3	—	—	—	—	—	75	—	1	75	1	0.034	0.015	
(b) Onchocerciasis ... ..	102	21	123	1	—	1	117	18	135	—	—	—	—	2	256	—	1	258	1	0.117	0.015	
(c) Other filariasis ... ..	1	—	1	—	—	—	2	6	8	—	—	—	—	—	9	—	—	9	—	0.004	—	
(c) Ancylostomiasis ... ..	96	6	102	2	—	2	51	21	72	—	—	—	—	—	174	—	2	174	2	0.079	0.031	
(a) Tapeworm and other cestode infesta- tions ... ..	2,027	1,085	3,112	13	3	16	2,300	2,631	4,931	7	9	16	8	42	7,993	—	32	8,043	32	3.646	0.493	
(b) Ascariasis ... ..	322	167	489	2	—	2	387	537	924	3	1	4	4	4	1,405	—	6	1,413	6	0.641	0.093	
(c) Guinea worm (dracunculosis)...	474	352	826	—	1	1	586	893	1,479	3	2	5	2	5	2,298	—	6	2,305	6	1.045	0.093	
(d) Other diseases due to helminths ... ..	99	4	103	—	—	—	8	4	12	—	—	—	—	—	17	—	—	17	—	0.008	—	
(a) Lymphogranuloma venereum...	14	71	170	—	—	—	105	75	180	1	1	2	2	5	343	—	2	350	2	0.159	0.031	
(b) Granuloma inguinale, venereal ... ..	12	3	15	—	—	—	1	3	9	—	—	—	—	—	27	—	—	27	—	0.012	—	
(c) Chancroid and other unspecified venereal diseases ... ..	82	10	92	—	—	—	3	2	5	—	—	—	—	—	18	—	—	18	—	0.008	—	
															97			97		0.044	—	



TABLE XI—(contd.)

DISEASES

IN-PATIENTS—GOVERNMENT AND MISSION HOSPITALS

(Hospitals with resident doctors only—1st December, 1957 to 30th November, 1958)

DISEASES	GOVERNMENT HOSPITALS				MISSION HOSPITALS				TERRITORIAL CASES			TERRITORIAL DEATHS			TERRITORIAL		
	CASES		DEATHS		CASES		DEATHS		Euro- pean	Asian	African	European	Asian	African	Total Cases	Total Deaths	Percent- age Morbid- ity
	M	F	Total	M	F	Total	M	F									
(d) Food poisoning infection and intoxication ... ..	36	28	64	—	—	—	28	16	44	13	9	22	—	—	108	22	0·049
(e) Relapsing fever, louse-borne ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(f) Relapsing fever, tick-borne ... ..	289	184	473	3	7	10	209	250	459	3	14	17	—	—	932	27	0·417
(g) Leptospirosis, icterohaemorrhagica (Weil's disease) ... ..	1	—	1	—	—	—	—	—	—	—	—	—	—	—	1	—	0·000
(h) Yaws ... ..	136	50	186	—	1	1	209	176	385	—	—	—	—	—	571	1	0·259
(i) Chickenpox ... ..	226	85	311	1	—	1	38	44	82	—	—	—	—	—	393	1	0·178
(j) Mumps ... ..	63	23	86	—	—	—	27	23	50	—	—	—	—	—	136	—	0·062
(k) Dengue ... ..	4	—	4	—	—	—	—	—	—	—	—	—	—	—	4	—	0·002
(l) Trachoma ... ..	65	47	112	—	—	—	177	251	428	—	—	—	—	—	540	—	0·245
(m) Sandfly fever ... ..	—	—	—	—	—	—	—	1	1	—	—	—	—	—	1	—	0·000
(n) Leishmaniasis ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(o) (i) Trypanosomiasis gambiensiis ... ..	1	—	1	—	—	—	9	3	12	1	—	1	—	—	13	1	0·006
(o) (ii) Trypanosomiasis rhodesiensis ... ..	308	37	345	19	7	26	37	8	45	2	1	3	—	—	390	29	0·177
(o) (iii) Other and unspecified trypanosomiasis ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(p) Dermatophytosis ... ..	5	1	6	1	—	1	—	—	—	—	—	—	—	—	6	1	0·003
(q) Scabies ... ..	44	21	65	—	—	—	86	29	115	—	—	—	—	—	180	—	0·082
(r) All other diseases classified as infective and parasitic ... ..	220	166	386	—	—	—	380	409	789	—	—	—	—	—	1,175	—	0·533
GROUP II	236	71	307	1	3	4	216	273	489	1	6	7	—	—	796	11	0·361
Neoplasms																	
Malignant neoplasm of buccal cavity and pharynx ... ..	16	8	24	1	1	2	6	9	15	—	—	—	—	—	39	7	0·018
Malignant neoplasm of oesophagus ... ..	6	2	8	2	—	2	6	5	11	3	—	—	—	—	19	5	0·009
Malignant neoplasm of stomach ... ..	32	16	48	10	4	14	36	16	52	5	4	9	2	19	100	23	0·045
Malignant neoplasm of intestine, except rectum ... ..	10	17	27	4	3	7	22	11	33	7	2	9	—	—	60	16	0·027
Malignant neoplasm of rectum ... ..	7	7	14	1	—	1	6	10	16	2	2	4	—	—	30	5	0·014
Malignant neoplasm of larynx ... ..	1	2	3	—	—	—	—	1	1	—	1	1	—	—	4	1	0·002
Malignant neoplasm of trachea, and of bronchus and lung not specified as secondary ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Malignant neoplasm of breast ... ..	26	4	30	2	2	4	5	7	12	—	1	1	1	4	42	5	0·019
Malignant neoplasm of cervix uteri ... ..	—	52	52	2	5	7	3	17	20	—	1	1	—	8	72	8	0·033
	—	117	117	—	14	14	2	83	85	—	6	6	—	20	202	20	0·092

Territorial Totals: Group I: Cases 69,870; Deaths 1,728.

TABLE XI—(contd.)

DISEASES

IN-PATIENTS—GOVERNMENT AND MISSION HOSPITALS

(Hospitals with resident doctors only—1st December, 1957 to 30th November, 1958)

DISEASES	GOVERNMENT HOSPITALS				MISSION HOSPITALS				TERRITORIAL CASES			TERRITORIAL DEATHS			TERRITORIAL			
	CASES		DEATHS		CASES		DEATHS		Euro- pean	Asian	African	Total Cases	Total Deaths	Percent- age Morbid- ity	Percent- age Mortal- ity			
	M	F	Total	M	F	Total	M	F								Total		
Malignant neoplasm of other and unspe- cified parts of uterus ...	—	58	58	—	4	4	—	—	—	2	96	—	—	7	98	7	0.044	0.108
Malignant neoplasm of prostate ...	36	—	36	26	—	26	—	—	1	2	59	1	—	5	62	5	0.028	0.077
Malignant neoplasm of skin ...	54	18	72	23	2	4	23	1	4	—	108	4	—	5	112	6	0.051	0.093
Malignant neoplasm of bone and connec- tive tissue ...	55	24	79	7	1	8	25	2	—	4	124	—	—	12	128	12	0.058	0.185
(a) Malignant neoplasm of liver and biliary passages ...	93	41	134	35	8	43	42	5	2	3	200	2	—	50	205	51	0.093	0.786
(b) Malignant neoplasm of all other and unspecified sites ...	140	70	210	43	15	58	94	9	2	6	356	2	4	73	364	78	0.165	1.202
Leukaemia and aleukaemia ...	20	16	36	6	2	8	7	1	4	—	43	4	—	11	47	11	0.021	0.170
Lymphosarcoma and other neoplasms of lymphatic and haematopoietic system	37	10	47	2	1	3	10	—	—	1	60	—	—	4	61	4	0.028	0.062
Benign neoplasms and neoplasms of unspecified nature ...	334	736	1,070	7	27	34	215	4	7	11	1,808	37	—	45	1,871	45	0.848	0.694
GROUPS III AND IV																		
Allergic, Endocrine system, Metabolic and Nutritional Diseases, and Diseases of the Blood and Blood-Forming Organs																		
Nontoxic goitre ...	68	76	144	—	1	1	11	—	—	1	234	—	—	2	235	2	0.107	0.031
Thyroiditis with or without goitre ...	7	5	12	—	1	1	—	—	1	1	14	1	—	2	15	2	0.007	0.031
Diabetes mellitus ...	113	31	144	8	4	12	54	6	12	44	198	15	3	21	257	24	0.116	0.370
(a) Beriberi ...	31	8	39	2	1	3	34	3	4	—	207	—	—	7	207	7	0.094	0.108
(b) Pellagra ...	57	36	93	1	1	2	21	2	3	—	130	—	—	4	130	4	0.059	0.062
(c) Scurvy ...	21	5	26	2	—	2	54	—	1	1	125	—	—	3	126	3	0.057	0.046
(d) Kwashiorkor ...	329	274	603	32	31	63	117	10	16	4	917	—	—	89	921	89	0.417	1.371
(e) Other deficiency states ...	360	349	709	44	30	74	437	27	23	50	1,584	3	2	122	1,601	124	0.726	1.911
(a) Pernicious and other hyperchromic anaemias ...	8	6	14	2	—	2	21	3	3	6	53	2	—	8	59	8	0.027	0.123
(b) Iron deficiency anaemias (hypochromic)	405	318	723	26	18	44	430	9	19	28	1,905	6	48	71	1,959	72	0.888	1.110
(c) Other specified and unspecified anaemias ...	462	344	806	41	22	63	798	13	26	39	2,650	6	37	99	2,693	102	1.221	1.572
(a) Asthma ...	436	251	687	7	4	11	185	2	4	6	978	23	39	1	1,040	17	0.471	0.262
(b) Other allergic disorders, endocrine, metabolic and blood diseases ...	220	139	359	15	5	20	180	12	9	21	744	22	27	1	793	41	0.359	0.632

Territorial Totals—Group II. Cases 3,516, Deaths 309.  
Groups III and IV, Cases 10,036, Deaths 495.

TABLE XI—(contd.)

DISEASES

IN-PATIENTS—GOVERNMENT AND MISSION HOSPITALS

(Hospitals with resident doctors only—1st December, 1957 to 30th November, 1958)

DISEASES	GOVERNMENT HOSPITALS						MISSION HOSPITALS						TERRITORIAL CASES			TERRITORIAL DEATHS			TERRITORIAL		
	CASES			DEATHS			CASES			DEATHS			Euro- pean	Asian	African	Total Cases	Total Deaths	Percent- age Morbid- ity	Percent- age Mortal- ity		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total									
GROUP V																					
<i>Mental, Psychoneurotic and Personality Disorders</i>																					
Psychoses ... ..	136	51	187	4	—	4	48	92	140	—	—	—	11	15	301	4	327	4	0-062	0-062	
Psychoneuroses and disorders of person- ality ... ..	48	81	129	—	—	—	47	72	119	—	1	1	23	10	215	1	248	1	0-112	0-015	
Mental deficiency ... ..	72	65	137	1	—	1	11	26	37	—	1	1	3	1	170	2	174	2	0-079	0-031	
GROUP VI																					
<i>Diseases of the Nervous System and Sense Organs</i>																					
Vascular lesions affecting central nervous system ... ..	79	20	99	19	3	22	29	18	47	3	4	7	6	9	131	23	146	29	0-066	0-447	
Nonmeningococcal meningitis ... ..	181	119	300	35	31	66	87	67	154	16	16	35	1	6	447	99	454	101	0-206	1-557	
Multiple sclerosis ... ..	4	2	6	—	—	—	5	2	7	—	—	—	—	—	13	—	13	—	0-006	—	
Epilepsy ... ..	147	75	222	3	2	5	46	29	75	—	—	—	4	1	292	5	297	5	0-135	0-077	
Inflammatory diseases of eye ... ..	800	416	1,216	—	—	—	938	1,033	1,971	—	1	1	8	52	3,127	1	3,187	1	1-445	0-015	
Cataract ... ..	127	26	153	—	—	—	236	135	371	1	—	1	2	11	511	1	524	1	0-238	0-015	
Glaucoma ... ..	4	4	8	—	—	—	24	26	50	—	—	—	1	2	55	—	58	—	0-026	—	
(a) Otitis externa ... ..	42	30	72	—	—	—	32	42	74	1	—	1	6	6	134	1	146	1	0-066	0-015	
(b) Otitis media and mastoiditis ... ..	198	122	320	1	—	1	218	206	424	—	—	—	6	15	723	1	744	1	0-337	0-015	
(c) Other inflammatory diseases of ear ... ..	73	50	123	1	—	1	48	59	107	—	—	—	5	2	223	1	230	1	0-104	0-015	
(a) All other diseases and conditions of eye ... ..	563	228	791	1	—	1	334	281	615	1	—	1	8	28	1,370	2	1,406	2	0-637	0-031	
(b) All other diseases of the nervous system and sense organs ... ..	341	206	547	18	10	28	211	160	371	9	11	20	17	21	880	1	918	48	0-416	0-740	
GROUP VII																					
<i>Diseases of the Circulatory System</i>																					
Rheumatic fever ... ..	97	41	138	2	3	5	34	32	66	2	—	2	3	6	195	5	204	7	0-092	0-108	
Chronic rheumatic heart disease ... ..	44	10	54	4	1	5	29	44	73	8	4	12	1	7	119	16	127	17	0-058	0-262	
Arteriosclerotic and degenerative heart disease ... ..	46	28	74	15	8	23	130	31	161	17	5	22	27	17	191	38	235	45	0-106	0-694	
Other diseases of the heart ... ..	292	173	465	69	41	110	195	207	402	28	21	49	36	33	798	148	867	159	0-393	2-451	
Hypertension with heart disease ... ..	53	24	77	16	5	21	39	39	78	—	1	1	10	9	136	19	155	22	0-070	0-339	
Hypertension without mention of heart ... ..	58	23	81	4	2	6	36	47	83	2	—	2	21	13	130	5	164	8	0-074	0-123	
Diseases of arteries ... ..	39	17	56	4	4	8	10	5	15	1	—	1	10	5	56	7	71	9	0-032	0-139	
Other diseases of circulatory system ... ..	273	138	411	21	11	32	119	116	235	8	6	14	37	35	574	41	646	46	0-293	0-709	

Territorial Totals Group V Cases 749; Deaths 7.

” VI Cases 8,123; Deaths 190.

” VII Cases 2,469; Deaths 313.



TABLE XI—(contd.)

## DISEASES

## IN-PATIENTS—GOVERNMENT AND MISSION HOSPITALS

(Hospitals with resident doctors only—1st December, 1957 to 30th November, 1958)

DISEASES	GOVERNMENT HOSPITALS						MISSION HOSPITALS						TERRITORIAL CASES			TERRITORIAL DEATHS			TERRITORIAL		
	CASES			DEATHS			CASES			DEATHS			Euro- pean	Asian	African	Total Cases	Total Deaths	Percent- age Morbid- ity	Percent- age Mortal- ity		
	M	F	Total	M	F	Total	M	F	Total	M	F	Total									
GROUP VIII																					
<i>Diseases of the Respiratory System</i>																					
Acute upper respiratory infections	417	333	750	3	2	5															
Influenza	328	49	377	1		1															
Lobar pneumonia	3,201	1,544	4,745	111	70	181															
Bronchopneumonia	1,908	1,603	3,511	180	134	314															
Primary, atypical, other and unspecified pneumonia	245	174	419	9	7	16															
Acute bronchitis	1,301	937	2,238	10	8	18															
Bronchitis, chronic and unqualified	642	320	962	8		8															
Hypertrophy of tonsils and adenoids	314	148	462		1	1															
Empyema and abscess of lung	74	24	98	7	2	9															
Pleurisy (other than tuberculous)	155	43	198	4		4															
(a) Pneumococci	2	22	24	2		2															
(b) All other respiratory diseases	505	318	823	9	7	16															
GROUP IX																					
<i>Diseases of the Digestive System</i>																					
(a) Dental caries	173	139	312		2	2															
(b) All other diseases of teeth and sup- porting structures	151	48	199																		
Ulcer of stomach	40	18	58		1	1															
Ulcer of duodenum	60	12	72	2	1	3															
Gastritis and duodenitis	217	86	303	5	1	6															
Appendicitis	187	100	287	9	2	11															
Intestinal obstruction and hernia	2,812	130	2,942	99	28	127															
(a) Gastro-enteritis and colitis between 4 weeks and 2 years	738	535	1,273	69	75	144															
(b) Gastro-enteritis and colitis ages 2 years and over	943	692	1,635	70	39	109															
(c) Chronic enteritis and ulcerative colitis	20	35	55	1	1	2															
Cirrhosis of the liver	308	115	423	48	22	70															
Cholelithiasis and cholecystitis	23	142	165	2		2															
Other diseases of digestive system	1,914	1,392	3,306	59	40	99															

Territorial Totals: Group VIII—Cases 24,159, Deaths 872  
IX Cases 16,724, Deaths 778



TABLE XI—(contd.)

DISEASES

IN-PATIENTS—GOVERNMENT AND MISSION HOSPITALS

(Hospitals with resident doctors only—1st December, 1957 to 30th November, 1958)

DISEASES	GOVERNMENT HOSPITALS					MISSION HOSPITALS					TERRITORIAL CASES			TERRITORIAL DEATHS			TERRITORIAL		
	CASES			DEATHS			CASES			DEATHS			Euro- pean	Asian	African	Total Cases	Total Deaths	Percent- age Morbid- ity	Percent- age Mortal- ity
	M	F	Total	M	F	Total	M	F	Total	M	F	Total							
GROUPS XII AND XIII <i>Diseases of the Skin and Cellular Tissues and Diseases of the Bones and Organs of Movement</i>	2,620	1,114	3,734	9	11	20	987	797	1,784	6	7	13	80	57	5,381	5,518	33	2.502	0.509
	631	207	838	1	—	1	236	136	372	—	—	—	26	13	1,171	1,210	1	0.548	0.015
	596	503	1,098	—	1	1	241	247	488	—	—	—	23	18	1,545	1,586	1	0.719	0.015
	341	146	487	7	—	7	103	70	173	1	2	3	1	6	653	660	10	0.299	0.154
	62	18	80	—	—	—	40	57	97	—	1	1	3	3	171	177	1	0.080	0.015
	1,848	514	2,362	9	6	15	514	391	905	1	1	2	8	20	3,239	3,267	17	1.481	0.282
	580	206	786	1	—	1	198	166	364	—	—	—	21	27	1,102	1,150	1	0.521	0.015
	857	426	1,283	4	3	7	239	136	375	2	—	2	38	21	1,509	1,658	9	0.752	0.139
	7	6	13	2	2	4	1	7	8	—	2	2	—	—	21	21	6	0.010	0.093
	3	1	4	—	—	—	4	9	13	1	3	4	1	1	15	17	4	0.008	0.062
GROUP XIV <i>Congenital Malformations</i>	70	78	148	11	11	22	31	44	75	3	4	7	2	12	209	223	29	0.101	0.447
	1	13	14	—	6	6	17	22	39	3	10	13	—	—	53	53	19	0.024	0.293
	2	60	62	1	2	3	38	43	81	18	15	33	—	—	141	143	36	0.065	0.555
	27	18	45	—	2	2	35	31	66	3	2	5	1	2	108	111	7	0.050	0.108
	—	9	9	—	—	—	9	32	41	—	1	1	—	1	49	50	1	0.023	0.015
	13	41	54	8	31	39	12	18	30	1	5	6	—	—	84	84	45	0.038	0.693
	3	6	9	—	1	1	1	11	12	—	1	1	—	—	21	21	2	0.010	0.031
	55	59	114	3	8	11	26	31	57	7	9	16	3	11	157	171	27	0.077	0.416
	75	209	284	46	57	103	193	332	525	80	132	212	4	9	796	809	315	0.367	4.855
	1	13	14	—	6	6	17	22	39	3	10	13	—	—	53	53	19	0.024	0.293
GROUP XV <i>Certain Diseases of Early Infancy</i>	2	60	62	1	2	3	38	43	81	18	15	33	—	—	141	143	36	0.065	0.555
	27	18	45	—	2	2	35	31	66	3	2	5	1	2	108	111	7	0.050	0.108
	—	9	9	—	—	—	9	32	41	—	1	1	—	1	49	50	1	0.023	0.015
	13	41	54	8	31	39	12	18	30	1	5	6	—	—	84	84	45	0.038	0.693
	3	6	9	—	1	1	1	11	12	—	1	1	—	—	21	21	2	0.010	0.031
	55	59	114	3	8	11	26	31	57	7	9	16	3	11	157	171	27	0.077	0.416
	75	209	284	46	57	103	193	332	525	80	132	212	4	9	796	809	315	0.367	4.855
	1	13	14	—	6	6	17	22	39	3	10	13	—	—	53	53	19	0.024	0.293
	2	60	62	1	2	3	38	43	81	18	15	33	—	—	141	143	36	0.065	0.555
	27	18	45	—	2	2	35	31	66	3	2	5	1	2	108	111	7	0.050	0.108
GROUP XVI <i>Certain Diseases of Early Infancy</i>	—	9	9	—	—	—	9	32	41	—	1	1	—	1	49	50	1	0.023	0.015
	13	41	54	8	31	39	12	18	30	1	5	6	—	—	84	84	45	0.038	0.693
	3	6	9	—	1	1	1	11	12	—	1	1	—	—	21	21	2	0.010	0.031
	55	59	114	3	8	11	26	31	57	7	9	16	3	11	157	171	27	0.077	0.416
	75	209	284	46	57	103	193	332	525	80	132	212	4	9	796	809	315	0.367	4.855
	1	13	14	—	6	6	17	22	39	3	10	13	—	—	53	53	19	0.024	0.293
	2	60	62	1	2	3	38	43	81	18	15	33	—	—	141	143	36	0.065	0.555
	27	18	45	—	2	2	35	31	66	3	2	5	1	2	108	111	7	0.050	0.108
	—	9	9	—	—	—	9	32	41	—	1	1	—	1	49	50	1	0.023	0.015
	13	41	54	8	31	39	12	18	30	1	5	6	—	—	84	84	45	0.038	0.693
GROUP XVII <i>Certain Diseases of Early Infancy</i>	3	6	9	—	1	1	1	11	12	—	1	1	—	—	21	21	2	0.010	0.031
	55	59	114	3	8	11	26	31	57	7	9	16	3	11	157	171	27	0.077	0.416
	75	209	284	46	57	103	193	332	525	80	132	212	4	9	796	809	315	0.367	4.855
	1	13	14	—	6	6	17	22	39	3	10	13	—	—	53	53	19	0.024	0.293
	2	60	62	1	2	3	38	43	81	18	15	33	—	—	141	143	36	0.065	0.555
	27	18	45	—	2	2	35	31	66	3	2	5	1	2	108	111	7	0.050	0.108
	—	9	9	—	—	—	9	32	41	—	1	1	—	1	49	50	1	0.023	0.015
	13	41	54	8	31	39	12	18	30	1	5	6	—	—	84	84	45	0.038	0.693
	3	6	9	—	1	1	1	11	12	—	1	1	—	—	21	21	2	0.010	0.031
	55	59	114	3	8	11	26	31	57	7	9	16	3	11	157	171	27	0.077	0.416
GROUP XVIII <i>Certain Diseases of Early Infancy</i>	75	209	284	46	57	103	193	332	525	80	132	212	4	9	796	809	315	0.367	4.855
	1	13	14	—	6	6	17	22	39	3	10	13	—	—	53	53	19	0.024	0.293
	2	60	62	1	2	3	38	43	81	18	15	33	—	—	141	143	36	0.065	0.555
	27	18	45	—	2	2	35	31	66	3	2	5	1	2	108	111	7	0.050	0.108
	—	9	9	—	—	—	9	32	41	—	1	1	—	1	49	50	1	0.023	0.015
	13	41	54	8	31	39	12	18	30	1	5	6	—	—	84	84	45	0.038	0.693
	3	6	9	—	1	1	1	11	12	—	1	1	—	—	21	21	2	0.010	0.031
	55	59	114	3	8	11	26	31	57	7	9	16	3	11	157	171	27	0.077	0.416
	75	209	284	46	57	103	193	332	525	80	132	212	4	9	796	809	315	0.367	4.855
	1	13	14	—	6	6	17	22	39	3	10	13	—	—	53	53	19	0.024	0.293
GROUP XIX <i>Certain Diseases of Early Infancy</i>	2	60	62	1	2	3	38	43	81	18	15	33	—	—	141	143	36	0.065	0.555
	27	18	45	—	2	2	35	31	66	3	2	5	1	2	108	111	7	0.050	0.108
	—	9	9	—	—	—	9	32	41	—	1	1	—	1	49	50	1	0.023	0.015
	13	41	54	8	31	39	12	18	30	1	5	6	—	—	84	84	45	0.038	0.693
	3	6	9	—	1	1	1	11	12	—	1	1	—	—	21	21	2	0.010	0.031
	55	59	114	3	8	11	26	31	57	7	9	16	3	11	157	171	27	0.077	0.416
	75	209	284	46	57	103	193	332	525	80	132	212	4	9	796	809	315	0.367	4.855
	1	13	14	—	6	6	17	22	39	3	10	13	—	—	53	53	19	0.024	0.293
	2	60	62	1	2	3	38	43	81	18	15	33	—	—	141	143	36	0.065	0.555
	27	18	45	—	2	2	35	31	66	3	2	5	1	2	108	111	7	0.050	0.108
GROUP XX <i>Certain Diseases of Early Infancy</i>	—	9	9	—	—	—	9	32	41	—	1	1	—	1	49	50	1	0.023	0.015
	13	41	54	8	31	39	12	18	30	1	5	6	—	—	84	84	45	0.038	0.693
	3	6	9	—	1	1	1	11	12	—	1	1	—	—	21	21	2	0.010	0.031
	55	59	114	3	8	11	26	31	57	7	9	16	3	11	157	171	27	0.077	0.416
	75	209	284	46	57	103	193	332	525	80	132	212	4	9	796	809	315	0.367	4.855
	1	13	14	—	6	6	17	22	39	3	10	13	—	—	53	53	19	0.024	0.293



TABLE XI—(contd.)

## DISEASES

IN-PATIENTS—GOVERNMENT AND MISSION HOSPITALS

(Hospitals with resident doctors only—1st December, 1957 to 30th November, 1958)

DISEASES	GOVERNMENT HOSPITALS						MISSION HOSPITALS						TERRITORIAL CASES			TERRITORIAL DEATHS			TERRITORIAL			
	CASES			DEATHS			CASES			DEATHS			Euro- pean	Asian	African	European	Asian	African	Total Cases	Total Deaths	Percent- age Morbidity	Percent- age Mortality
	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total	-	-	-	-	-	-	-
<b>GROUP XVI</b>																						
<i>Symptoms, Senility, and Ill-Defined Conditions</i>																						
Senility without mention of psychosis ...	77	44	121	18	8	26	25	26	51	1	2	3	5	4	163	-	29	29	172	29	0.078	0.447
(a) Pyrexia of unknown origin ...	3,536	2,032	5,568	82	46	128	953	1,129	2,082	32	39	71	175	67	7,408	-	196	196	7,650	199	3.468	3.067
(b) Observation without need for further medical care ...	649	544	1,193	4	1	5	314	438	752	-	-	-	57	32	1,856	-	5	5	1,945	5	0.882	0.077
(c) All other ill-defined causes of morbidity ...	821	773	1,594	34	24	58	249	335	584	38	20	58	157	101	1,920	1	108	108	2,178	116	0.987	1.788
<b>GROUP XVII</b>																						
<i>Accidents, Poisonings and Violence</i>																						
Fracture of skull ...	245	51	296	53	6	59	30	7	37	8	1	9	7	16	310	-	63	63	333	68	0.151	1.048
Fracture of spine and trunk ...	251	58	309	9	2	11	52	28	80	2	2	4	9	12	368	-	15	15	389	15	0.176	0.231
Fracture of limbs ...	3,370	1,024	4,394	13	7	20	270	121	391	1	1	2	106	145	4,534	-	22	22	4,785	22	2.169	0.539
Dislocation without fracture ...	364	150	514	3	1	4	49	22	71	-	-	-	9	6	570	-	4	4	585	4	0.265	0.062
Sprains and strains of joints and adjacent muscles ...	643	132	775	-	-	-	91	36	127	-	-	-	19	6	877	-	-	-	902	-	0.409	-
Head injury (excluding fracture) ...	432	124	556	32	2	34	98	24	122	1	-	1	22	30	626	-	34	34	678	35	0.307	0.539
Internal injury of chest, abdomen and pelvis ...	128	36	164	35	10	45	53	42	95	5	1	6	4	3	252	3	47	47	259	51	0.117	0.786
Laceration and open wounds ...	3,779	713	4,492	13	6	19	628	285	913	5	3	8	62	58	5,285	-	25	25	5,405	27	2.450	0.416
Superficial injury, contusion and crushing E with intact skin surface ...	1,641	445	2,086	3	1	4	199	141	340	-	-	-	24	29	2,373	-	4	4	2,426	4	1.100	0.062
Effects of foreign body entering through orifice ...	152	72	224	2	-	2	30	20	50	1	1	2	4	9	261	-	4	4	274	4	0.124	0.062
Burns ...	602	325	927	26	20	46	152	134	286	5	12	17	5	23	1,185	-	61	61	1,213	63	0.550	0.971
Effects of poisons ...	323	131	454	10	5	15	90	112	202	28	39	67	11	19	626	1	80	80	656	82	0.297	1.264
All other and unspecified effects of external causes ...	632	189	821	9	2	11	190	84	274	2	1	3	24	16	1,055	-	12	12	1,095	14	0.496	0.216
Totals ...	73,997	54,398	128,395	2,433	1,687	4,120	39,060	53,154	92,214	1121	1,247	2,368	3,383	3,809	213,417	42	6,315	6,315	220,609	6,488	100.000	100.000

Territorial Totals:—Group XVI	Cases 11,945.	Deaths 349.
"	Cases 19,000.	Deaths 389.
Total	220,609.	6,488.



TABLE XII—(contd.)

## DISEASES

## OUT-PATIENTS—GOVERNMENT AND MISSION HOSPITALS

(Hospitals with resident doctors only—1st December, 1957 to 30th November, 1958)

	GOVERNMENT HOSPITALS			MISSION HOSPITALS			Total European	Total Asian	Total African	Territorial Total	Group Total	Percentage Morbidity
	M	F	Total	M	F	Total						
Tapeworm	1,753	1,165	2,918	1,139	904	2,043	8	8	4,945	4,961		0.318
(a) Filariasis	176	223	399	107	55	162	—	3	558	561		0.036
(b) Onchocerciasis	4	—	4	—	—	—	—	—	4	4		0.000
Ankylostomiasis	10,095	8,149	18,244	7,425	9,484	16,909	19	55	35,079	35,153		2.254
Ascariasis	4,362	3,332	7,694	2,441	2,983	5,424	35	45	13,038	13,118		0.841
Guinea worm (dracunculosis)	19	11	30	1	3	4	1	3	30	34		0.002
Tinea	2,428	1,378	3,806	375	246	621	64	40	4,323	4,427		0.284
Scabies	11,941	9,273	21,214	3,499	3,076	6,575	9	81	27,699	27,789		1.782
All other infective and parasitic diseases	5,527	4,316	9,843	1,644	1,488	3,132	288	131	12,556	12,975		0.332
GROUP II												
Neoplasms												
Malignant neoplasms	107	138	245	62	73	135	14	19	347	380		0.024
Non-malignant	361	443	804	103	294	397	36	10	1,155	1,201	2,967	0.077
Unspecified	554	532	1,086	104	196	300	27	5	1,354	1,386		0.089
GROUP III												
Allergic, Endocrine system, Metabolic and Nutritional Diseases												
Asthma	2,847	1,372	4,219	622	370	992	106	332	4,773	5,211		0.334
Diabetes	192	148	340	1,927	19	1,946	17	151	2,118	2,286		0.147
Vitamin deficiency states	1,296	1,398	2,694	3,014	5,004	8,018	9	85	10,618	10,712		0.687
Kwashiorkor	565	552	1,117	220	279	499	—	3	1,613	1,616		0.104
Other allergic, endocrine system, metabolic and nutritional diseases	3,762	3,493	7,255	981	1,163	2,144	410	363	8,626	9,399	29,224	0.603
GROUP IV												
Diseases of the Blood and Blood-Forming Organs												
All diseases of the blood and blood-forming organs	3,946	3,829	7,775	2,224	3,288	5,512	186	316	12,785	13,237	13,287	0.852
GROUPS V AND VI												
Mental, Psychoneurotic and Personality Diseases of the Nervous System and Sense Organs												
Mental disorders	131	137	268	107	85	192	93	12	355	460		0.029
Cerebral-haemorrhage	14	11	25	2	2	4	—	—	29	29		0.002
Epilepsy	132	71	203	127	55	182	6	12	367	385		0.025
Other diseases of nervous system	4,682	3,104	7,786	841	710	1,551	371	222	8,744	9,337		0.599
Inflammatory and other diseases of the eye and annexe except trachoma	25,731	20,867	46,598	10,068	11,085	21,153	451	737	66,563	67,751	105,209	4.345
Diseases of ear and mastoid	12,765	8,892	21,657	2,727	2,863	5,590	902	463	25,882	27,247		1.747



TABLE XII—(contd.)  
DISEASES

OUT-PATIENTS—GOVERNMENT AND MISSION HOSPITALS  
(Hospitals with resident doctors only—1st December, 1957 to 30th November, 1958)

	GOVERNMENT HOSPITALS			MISSION HOSPITALS			Total European	Total Asian	Total African	Territorial Total	Group Total	Percentage Morbidity
	Male	Female	Total	Male	Female	Total						
GROUP VII												
<i>Diseases of the Circulatory System</i>												
Diseases of the circulatory system:—												
(a) Heart disease	242	188	430	669	627	1,296	96	98	1,532	1,726		0.111
(b) Other circulatory diseases	983	601	1,584	267	305	572	290	171	1,695	2,156	3,882	0.138
GROUP VIII												
<i>Diseases of the Respiratory System</i>												
Pneumonia	5,072	4,140	9,212	2,244	2,049	4,293	34	149	13,322	13,505		0.866
Other diseases of respiratory system	103,470	67,721	171,191	19,570	19,278	38,848	3,010	3,830	203,199	210,039	223,544	13.470
GROUP IX												
<i>Diseases of the Digestive System</i>												
Diseases of Teeth and supporting structure:—												
(a) Caries	12,589	8,082	20,671	3,427	2,941	6,368	355	368	26,316	27,039		1.734
(b) Other conditions	6,487	4,391	10,878	950	973	1,923	232	226	12,343	12,801		0.821
Appendicitis	151	82	233	24	26	50	43	36	204	283		0.018
Intestinal obstruction and hernia	1,618	81	1,699	484	129	613	36	33	2,243	2,312		0.148
Gastro-enteritis:—												
(a) Between 4 weeks and 2 years	5,793	6,226	12,019	2,020	2,121	4,141	150	266	15,744	16,160		1.036
(b) 2 years and over	13,699	8,417	22,116	1,907	1,751	3,658	618	320	24,836	25,774		1.654
Cirrhosis of the liver	64	49	113	58	82	140	8	7	238	253		0.016
Other diseases of liver and bile passages	765	377	1,142	236	204	440	76	62	1,444	1,532		0.101
Other diseases of digestive system	61,830	52,470	114,300	6,416	7,560	13,976	1,120	1,452	125,704	128,276	214,480	8.227
GROUP X												
<i>Diseases of the Genito-Urinary System</i>												
Nephritis	89	107	196	171	108	279	20	16	439	475		0.030
Other diseases of genito-urinary system	13,469	10,802	24,271	3,485	8,494	11,979	942	817	34,491	36,250	36,725	2.325
GROUP XI												
<i>Deliveries and Complications of Pregnancy, Childbirth and the Puerperium</i>												
Diseases of pregnancy, childbirth and the puerperal state:—												
(a) Toxaemias of pregnancy	—	1,161	1,161	—	117	117	48	27	1,203	1,278		0.082
(b) Abortion	—	780	780	—	370	370	13	34	1,103	1,150		0.074
(c) Other conditions of the puerperal state	—	4,950	4,950	—	2,205	2,205	123	48	6,984	7,155		0.459
Normal deliveries	—	203	203	—	34	34	16	16	205	237	9,320	0.015

TABLE XII—(contd.)

DISEASES

OUT-PATIENTS—GOVERNMENT AND MISSION HOSPITALS

(Hospitals with resident doctors only—1st December, 1957 to 30th November, 1958)

	GOVERNMENT HOSPITALS			MISSION HOSPITALS			Total European	Total Asian	Total African	Territorial Total	Group Total	Percentage Morbidity
	Male	Female	Total	Male	Female	Total						
GROUPS XII AND XIII												
<i>Diseases of the Skin and Cellular Tissue, and Diseases of Bones and Organs of Locomotion</i>												
Ulcers	50,612	20,399	71,011	7,283	4,369	11,652	125	256	82,282	82,663		5.302
Rheumatic conditions	28,215	19,686	47,901	3,983	3,540	7,523	412	655	54,357	55,424		3.554
Other diseases of bones, skin and musculo-skeletal system	41,638	22,946	64,584	6,064	5,735	11,799	2,714	1,657	72,012	76,383	214,470	4.898
GROUPS XIV AND XV												
<i>Congenital Malformations and Certain Diseases of Early Infancy</i>												
Diarrhoea of the new-born	96	83	179	23	96	119	2	4	292	298		0.019
Ophthalmia neonatorum	65	55	120	27	25	52	—	1	171	172		0.011
Immaturity	4	1,486	1,490	39	54	93	—	—	1,583	1,583		0.102
All other malformation and diseases of early infancy	1,197	933	2,130	235	267	502	34	12	2,636	2,682	4,735	0.172
GROUP XVI												
<i>Senility and Ill-Defined Conditions</i>												
Senility	361	239	600	31	43	74	10	15	649	674		0.043
All other ill-defined causes of morbidity	11,603	7,017	18,620	2,391	2,602	4,993	878	837	21,898	23,613	24,287	1.514
GROUP XVII												
<i>Accidents, Poisoning and Violence</i>												
Fractures and dislocations	2,498	992	3,490	347	156	503	269	205	3,519	3,993		0.256
Injuries by animals and insects	1,842	1,085	2,927	313	237	550	161	61	3,255	3,477		0.223
Other wounds and superficial injuries (excluding burns)	41,672	14,267	55,939	11,025	5,171	16,196	619	642	73,374	75,135		4.818
Burns and scalds	4,314	2,600	6,914	768	638	1,406	65	131	8,124	8,320		0.534
Poisons	89	63	152	289	12	301	16	14	428	458		0.029
All other injuries from external causes	16,995	5,458	22,453	2,532	1,339	3,871	473	313	25,538	26,324		1.688
Examinations	17,884	6,916	24,800	7,218	13,082	20,300	2,610	2,138	40,352	45,100	162,807	2.892
Totals	715,465	463,260	1,178,725	184,179	191,449	375,628	20,489	22,654	1,516,210	1,559,353	1,559,353	100.000







